The Triple P Positive Parenting Programme and its Impact on the Quality of the Sibling Relationship and Parent, Target Child and Sibling Interactions

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Abstract

Many families attend parenting programmes wanting assistance for their childrenôs behaviour problems and also for managing sibling relationships but there has been little research in this area.

The aim of this research project was to assess the effects of the Triple P Level Four Positive Parenting Programme on the quality of the sibling relationships and parent-child relationships with four families drawn from a large city in New Zealand.

Direct observation, semi informal parent interviews, questionnaires, child interviews, and anecdotal dated and timed notes were used to assess if there were changes in the quality of target child/sibling and the parent-child-sibling relationship and interactions.

The Triple P Programme appeared to be an effective intervention for three of the four families according to final parent interviews. However, analysis of the direct observations indicated inconsistent and varied effects between and within measures.

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Chapter One

Introduction

Sibling relationships are influenced largely by the family context and sibling conflict is a reasonably normative feature of human experience (Recchia & Howe, 2009). Parents consider the notion of encouraging young siblings to get along with each other to be one of the most difficult aspects of parenting (Kramer & Baron, 1995). Furthermore, it is estimated that about 80-90% of individuals have at least one sibling and that they spend more time with their siblings than they do with their parents along with sharing demographic characteristics and significant events with them (Branje, Van Lieshout, Van Aken & Haselager, 2004; Fagan & Najman, 2003; Feinberg, Solmeyer & McHale, 2012; Stocker, Burwell & Briggs, 2002).

Research has examined the quality of sibling relationships in childhood as being a predictor for later maladjustment. Dunn, Slomkowski, Beardsall and Rende (1994) found that regardless of developmental changes and significant life events experienced from preschool through to early adolescence, clear associations between the quality of sibling relationships during preschool years and both internalising and externalising adjustment seven years later were found. In support of this, negative sibling relationships have been found to be associated with later maladjustment issues such as increased anxiety, depressed mood and delinquent behaviour (Branje et al., 2004; Kim, Hetherington & Reiss, 1999; Stocker et al., 2002; Waldinger, Vaillant & Orav, 2007). Other researchers have found that having a more positive relationship in childhood is associated with more positive self-worth, lower rates of loneliness, depression and substance abuse in later adolescence and furthermore, acts as a protective factor against stressful life events (Gass, Jenkins & Dunn, 2007; Jenkins & Smith, 1990; Stocker, 1994; Stocker et al., 2002; Tucker, Mchale & Crouter, 2001). In sum, as

sibling relationships become less conflictual and warmer over time, depressive symptoms appear to decline in the siblings and vice versa (Richmond et al., 2005).

Sibling relationships and their interactions appear to be somewhat overlooked in research which is surprising as siblings spend a substantial amount of time together and the characteristics and dynamics of the relationship can considerably influence the developmental trajectories of the siblings (Feinberg, et al., 2012). These relationships can be complex, powerful and intense and drive development, however, it is also important to remember these relationships do not occur in isolation but in an entrenched network of interconnected family relationships (Feinberg et al., 2012; Stocker, et al., 2002). Research indicates that birth order, age differences, gender constellation and biological relatedness all influence the sibling relationship and, if one considers that a large majority of children from the United States grow up in homes with at least one sibling and that research shows that European American children spend the majority of their spare time with their siblings over anyone else, then the importance of considering the effects of these relationships and what action can be taken to improve conflictual sibling relationships to prevent such outcomes becomes clear (Feinberg et al., 2012; Stocker et al., 2002).

Parenting quality and parent-child relationships are a significant influence on sibling relationship quality. Positive parent-child relationships are thought to contribute to the growth of pro-social orientations between siblings and harsh and authoritarian parenting is associated with increased conflictual sibling exchanges (Brody, 1998; Feinberg et al., 2012). Furman and Giberson (1995) linked sibling conflict and parental negativity to low levels of parental monitoring and involvement. In contrast, parenting that involves using conflict resolution strategies is associated with more harmonious sibling relationships (Feinberg et al., 2012). Parental interventions may be successful in encouraging and imparting knowledge regarding parenting strategies and skills necessary for increasing parental competence and managing

misbehaviour however little research has been conducted on the effects of these parenting programmes on the sibling relationships itself (Recchia & Howe, 2009).

Theories and Models Regarding Sibling Relationships

There are many theories and models that can aid the understanding of family dynamics and sibling relationships and conflict within the relationship. External influences on the family play a large role in sibling relationships and this is where Bronfenbrennerôs Ecological Systems Theory proposes multiple levels of environmental and contextual influences on individualsô development and can therefore help explain sibling relationships (Bronfenbrenner, 1979, 1986). The microsystem, the most immediate context to the individualôs everyday life can support close and involved sibling relationships. Connections between microsystem contexts are referred to as the mesosystem. An example of a mesosytemic influence relating to siblings is a parent interaction with a sibling which does not include the target child but nonetheless has effects into that childôs microsystem. Siblings are not directly engaged in the exosystem but it has an indirect impact on their relationship because of its follow through effects to the microsystem. For example, parents may work long hours; this may impact on the oldest sibling to have to take on a care giving role and hence promote complementarity rather than equality in sibling roles. Lastly, the broader societal environment is referred to as the macrosystem and includes politics and cultural forces. This affects sibling relationships, for example, when considering individualist Western cultures versus more collectivist Eastern cultures (Bronfenbrenner, 1979, 1986).

Social comparison theory infers that we evaluate ourselves based on comparisons with other individuals, particularly those in close proximity and who we are similar to. Siblings are a perfect fit for this theory as they are often openly compared to each other by parents or others (Festinger, 1954). Individuals make ôupward comparisonsô to those they

admire and have a high level of status and attempt to detect commonalities to enhance their sense of self. Alternatively, ódownward comparisonsô involve enhancing ones sense of self in a defensive way when individuals consider themselves better off than others (Whiteman, McHale & Soli, 2011). Siblings engage in social comparison often, particularly when considering how their parents treat them in comparison to their siblings (McHale, Crouter, McGuire & Updegraff, 1995). Empirical findings have suggested that children as young as two are highly aware of, and compare, their parentôs behaviour toward them and their siblings (Dunn & Munn, 1985).

Adlerôs theory of individual psychology (as cited in Whiteman et al., 2011) views social comparisons and power dynamics in families as central to an individualôs sense of self. He advocated for the importance of equal treatment of siblings as a preventative measure in promoting self-esteem (as cited in Whiteman et al., 2011). Adler also discussed how individuals compensate for being treated differently by creating maladaptive lifestyles and concluded that parental favouritism or differential treatment of one sibling over another is associated with poorer sibling relationships (as cited in Whiteman et al., 2011).

Family systems theory is derived from general systems theory and focuses on the larger context in which sibling relationships grow and form (Bertalanffy, 1950). It suggests families are best understood when considered holistically (Whiteman et al., 2011). Families are seen to be hierarchically structured into subsystems which are interactive, interdependent and reciprocally influential. The hierarchy includes individuals, dyads such as sibling relationships and parent-child relationships, triads such as parent-sibling and then beyond to the wider family system of grandparents, aunts and uncles and so on. (Brody, 1998; Whiteman et al., 2011). This theory considers the dynamic nature of family structure and process in that they adapt in response to changes in the environment and internal circumstances but also strive for a balance between stability and change (Whiteman et al.,

2011). Applied to sibling relationship quality, the dynamics and characteristics of individual family members and family sub systems can add to sibling interactions with and attitudes toward one another (Brody, 1998).

Social learning theory suggests that we acquire new behaviours and develop attitudes and views through observation, reinforcement and ensuing imitation of significant models, predominantly those who are similar to ourselves, kind and influential (Bandura, 1977). This theory suggests children learn deviant or hostile behaviours from conflict with their siblings and that they transfer this behaviour in other contexts. Siblings are significant models for children and adolescents (Stocker et al., 2002). Social learning theory is one of the most commonly used theories in explaining parent-child-sibling dynamics. This research has found two main pathways of family relationships. The first pathway is positive where parentsô role model effective conflict resolution strategies to their children and as a result, the children learn and imitate their positive interactions. The second pathway is the opposite where parentsô model negative behaviours to their children and as a consequence of these interactions, the children observe and imitate this behaviour (Stocker et al., 2002; Whiteman, et al., 2011). Social learning theorists have found that patterns of behaviour demonstrated during parent-child interactions can be generalised to childrenôs relationships with their peers and siblings (Brody, 1998; Parke, MacDonald, Beitel & Bhavnagri, 1988; Patterson, 1984).

Patterson (1982) proposes the coercive processes model and theories of deviancy training processes based on Banduraôs social learning theory. These models give insight into antisocial behaviour and reinforcement patterns of siblings and parents. The main feature of this theory is that coercion and negativity in the sibling or parent relationship signify a ñtraining groundò for coercive exchanges and the development of a coercive interpersonal style (Patterson, 1982). Through social reinforcement, children adopt coercive behaviour patterns that they have observed and learned because they see this as a successful way of

attaining a goal. This interpersonal style decreases the ability to tolerate frustration, cope with negative emotions, communicate with composure and through repetition, a working model of conflict resolution is formed based on coercion; this method transfers to dealings with peers and others outside the family (Patterson, 1982). Coercion within the sibling-parent relationship influences childrenôs behaviour as their responses to parent control attempts, and parent-child conflict affects, parenting behaviour (Rueter & Conger, 1998). It appears that coercion and conflict within sibling relationships may put children at risk for interpersonal difficulties with peers, problems at school and links to substance use and deviant peers (Yabko, Hokoda & Ulloa, 2008). In addition, siblings assist in deviancy training by acting as antisocial models, reinforcing antisocial attitudes and behaviours and conspiring to challenge parental authority (Feinberg et al., 2012). The family effects model suggests that these coercive and conflictual patterns of sibling interactions are a significant stressor for parents and can reduce the mental well-being of parents (Feinberg et al., 2012). This can then disrupt engaged and capable parenting which can result in harsh, authoritarian discipline and disengagement which can then increase the conflictual sibling exchanges (Feinberg et al., 2012).

Attachment theory helps explain developmental changes and individual differences in these social relationships (Bowlby, 1969). This theory targets the initial bonds between infant and parent or primary caregiver as crucial to the survival of the infant. Over the first few years of life this attachment relationship develops and the nature of that attachment relationship with the primary attachment figure (usually the mother) becomes the foundation for an internal working model of relationships including the childôs expectations, understanding, emotions and behaviours involving their interpersonal relationships overall (Bowlby, 1969). This indicates that this initial attachment relationship has long term repercussions for the quality of the childôs relationships with their siblings. For example,

insecure attachment relationships may result in conflictual, aloof and unsatisfying relationships with others and siblings (Bowlby, 1969). Teti and Ablard (1989) found that securely attached siblings were more likely to form a positive relationship together compared to insecurely attached siblings. They interpreted these results through an attachment theory perspective and also noted that ósecureô parent-child relationships result in children who are more likely to develop working models of themselves as worthy of love and care and of their parents as loving and nurturing.

Sibling Relationships and Parenting

Numerous factors influence siblingsô relationships and siblings externalising behaviour problems. Evidence suggests that the immediate family is a significant environmental influence relating to social and emotional behaviours in siblings and that these influences can affect the emergence of problematic behaviours (Brody, Stoneman & Mackinnon, 1986; Brody, Stoneman & Burke, 1987; Brody, Stoneman & McCoy, 1992; Brody, Stoneman, McCoy & Forehand, 1992; Brody, Stoneman & McCoy, 1994a; Brody, Stoneman & McCoy, 1994b; Brody, Stoneman & Gauger, 1996; Dunn & Kendrick, 1982; Hetherington, 1988; Howe, 1986; Meunier, Roskam, Stievenart, Van De Moortele, Browne & Kumar, 2011; Stewart, Mobley, Van Tuyl & Salvador, 1987; Stocker, Dunn & Plomin, 1989). A large amount of research has established that parent-child relationships with high levels of positivity are associated with increased levels of pro-social behaviour and positive affectivity in the sibling relationship. Conversely, parent-child relationships with high levels of negativity, intrusiveness and over control are linked with self-protective and aggressive behaviour in the sibling relationship (Brody et al., 1986; Brody et al., 1987; Brody et al., 1992; Brody et al., 1992; Brody et al., 1994a; Brody et al., 1994b; Brody et al., 1996; Dunn & Kendrick, 1982; Hetherington, 1988; Howe, 1986; Stewart et al., 1987; Stocker et al., 1989).

While a certain degree of conflict in sibling relationships is normative, prolonged conflict can have a detrimental effect on the well-being and mental health of children. Stocker et al., (2002) found that having a more positive sibling relationship in early adolescence was associated with lower rates of loneliness, depression and substance abuse in mid adolescence. Sibling relationships can be a major positive influence on sibling lives. Warm, supportive and close sibling relationships can act as a buffer on the effect of negative influences on child well-being. For example, various studies suggest that close sibling relationships decrease the negative effects of marital hostility on children's adjustment (Dekovic & Buist, 2005; Jenkins & Smith, 1990; O'Connor, Hetherington & Reiss, 1998). Furthermore, in a longitudinal study of 374 families by Yeh and Lempers (2004) they found that adolescents who reported having positive sibling relationships at time one were inclined to have healthier friendships and increased self-esteem at time two which was then associated with lower ratings of loneliness and depression and less delinquent behaviours at time three (Yeh & Lempers, 2004).

Another major finding on sibling relationships that appears to be consistent across the research is that while the general level of parenting is a significant influencing factor on sibling relationships, so too is the amount of Parental Differential Treatment (PDT) present in a family (Brody, 1998; Meunier et al., 2011; Meunier, Roskam, Stievenart, Van De Moortele, Browne & Wade, 2012). Within the family context, some PDT is normative and is likely due to children's different characteristics such as abilities, age, gender and temperament however, pronounced levels of PDT can be maladaptive (Brody, 1998; Meunier et al., 2012). In particular, pronounced PDT has been positively associated with children's behaviour problems such as higher levels of externalising behaviours problems in the disfavoured child, depressed mood, anxiety, low self-esteem and conflictual sibling relationships. This is a critical discovery in relation to families attending parenting programmes however, while it is

important to realise how influential these parenting factors are on childrenôs adjustment and sibling relationship quality, it is important to be aware that they are also dynamic in nature (Brody, 1998; Dunn & Stocker, 1989; Kowal, Krull & Kramer, 2004; Meunier et al., 2011; Meunier et al., 2012; Richmond, Stocker & Rienks, 2005). From early in age children are aware of and often compare their parentsô behaviour towards themselves and other siblings (Richmond et al., 2005). Research has found that as children become more favoured than their sibling over time, there is a decline in their externalising behaviours however, PDT is not as closely tied to internalising problems (Kowal, Kramer, Krull & Crick, 2002; Meunier et al., 2012; Richmond et al., 2005). It is important to note that childrenôs perception of the PDT and whether it is considered justified and fair largely influences the childrenôs adjustment to it however, this aspect of parent-sibling relationships is beyond the scope of this research (Meunier et al., 2012; Kowal et al., 2004). Parental Differential Treatment is a key factor to consider in this study as it has been found that problematic children who are hard to manage have been found to have parents who use negative and controlling parenting styles and who treat their children unjustifiably differentially (Meuiner et al., 2012; Rueter & Conger, 1998).

While there is consensus in the research of sibling relationship quality being associated with internalising problems in children, there are conflicting findings around whether it is associated with externalising behaviours, with some studies finding it is and some not (Branje et al., 2004; Dunn et al., 1994; Hetherington & Clingempeel, 1992; Kim et al., 1999; Meunier et al., 2012; Richmond et al., 2005; Stocker et al., 2002; Waldinger et al., 2007).

It is important to note that while the majority of the literature focuses on the maladaptive aspects of conflictual sibling relationships, conflict can offer an opportunity for siblings to express feelings, voice emotions and practice open communication (Brody, 1998).

If conflict is managed in a way that promotes discussion, compromise and self-assertion then both conflict and supportiveness in sibling interactions can link to the development of childrenôs social cognitive skills and consideration of others feelings and beliefs (Brown & Dunn, 1992; Dunn, Brown & Beardsall, 1991a; Dunn, Brown, Slomkowski, Tesla & Youngblade, 1991b; Howe, 1991; Howe & Ross, 1990; Youngblood & Dunn, 1995). Therefore sibling relationships, childrenôs adjustment and parenting factors such as PDT all play a significant and interconnected role in the later outcome for the child.

Brody (1998) proposes a model showing an excellent example of family experiences and their associations with sibling relationship quality while also considering potential mediators. This model helps in understanding differences in sibling relationship quality. This framework presented in Figure 1 shows family processes on the left where child temperaments repeatedly interact and contribute to childrenôs individual behaviour patterns which involve skills such as emotion regulation and coping which are attributions involved in explaining sibling relationship events and norms concerning fairness and aggression in sibling relationships which is in the middle panel. On the right side, events in the sibling relationship feed back over time to affect parent-child relationships, differential treatment processes, and parental management of sibling conflict and also, the mediators (Brody, 1998 p.10-12)

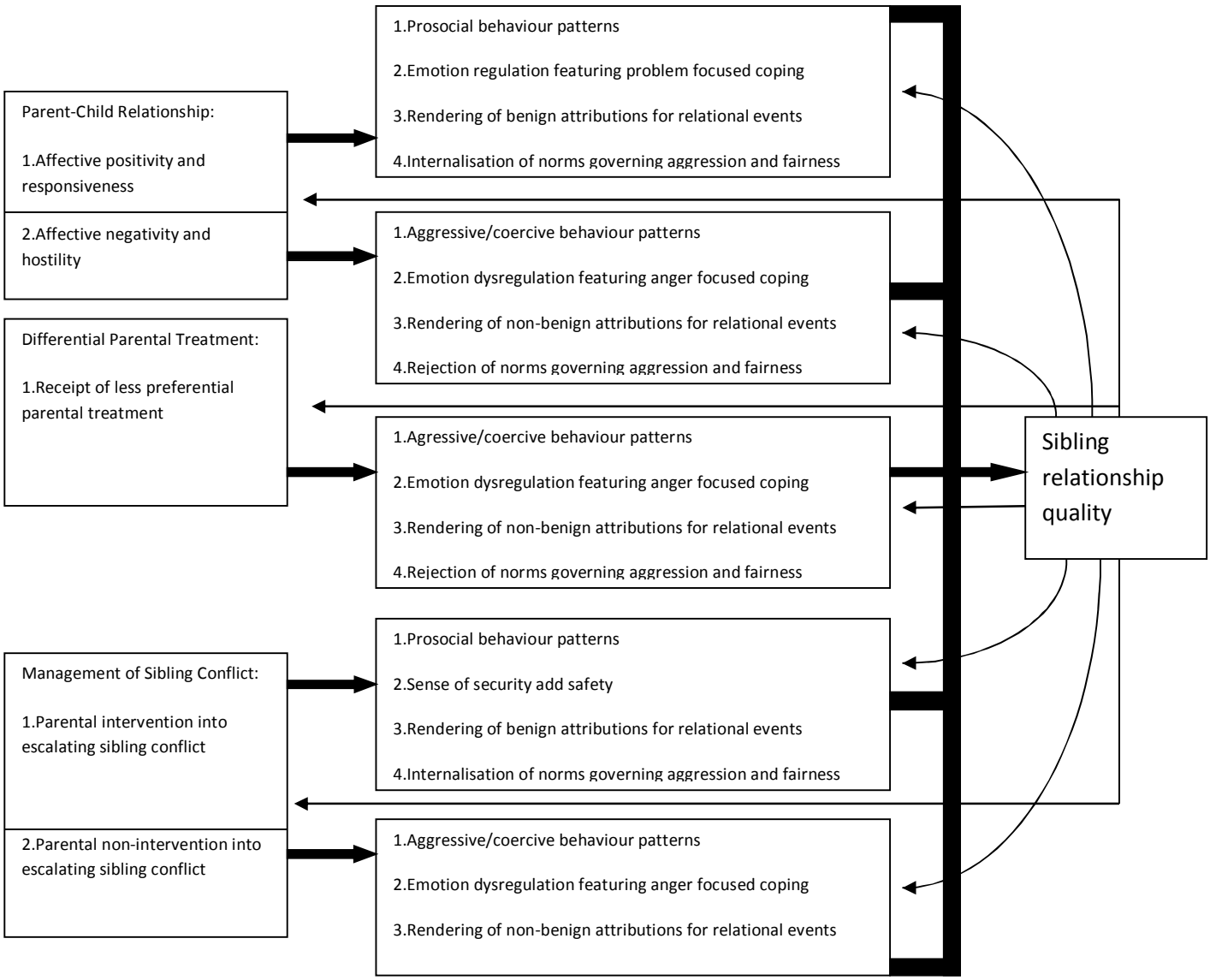

Figure 1. Family experiences and their associations with sibling relationship quality.

Social learning theory has described discrepancies in parentsô treatment of their children as creating negativity in the sibling relationship by inducing feelings of competition and antagonism (Brody, 1998). Parental Differential Treatment (PDT) is a key dynamic that influences sibling relationships (Feinberg et al., 2012). Western social norms place importance on equal treatment of children however, parents often recognise differences

between their childrenôs behaviours, personality and needs and this can motivate them to treat them differently (Feinberg et al., 2012). Parental Differential Treatment is reported frequently among children and it has been found to be linked to less positive sibling relationships and higher levels of depression in the disfavoured child along with antisocial and delinquent behaviour and substance use (Brody et al., 1987; Feinberg & Hetherington, 2001; Richmond, Stocker & Rienks, 2005; Shanahan, McHale, Crouter & Osgood, 2008; Stocker et al., 1989; Tamrouti-Makkink, Dubas, Gerris & Van Aken, 2004). These findings were produced from various longitudinal studies that controlled for parent-child relationship quality. For example, Richmond et al. (2005) found that as sibling relationships improve, depressive symptoms in children decline. Furthermore, less favoured children over their siblings resulted in increased externalising problems over time (Richmond et al., 2005).

An important aspect of PDT is the siblingsô perception of the parentsô reason for the differential treatment and whether they think it is justified and fair. This is perhaps more important than the specific amount of differential treatment itself (Feinberg et al., 2012). McHale, Updegraff, Jackson-Newsom, Tucker and Crouter (2000) found that how siblingsô rated the fairness of their treatment was more consistently linked with well-being and how they rated their relationships than was the specific amount of PDT. Furthermore, they found that differential warmth was connected to siblingsô well-being more so than such aspects as unfair distribution of household chores. These findings reinforce the importance of siblingsô evaluations of their family experiences and that even when parents attempt to treat their children equally, if that treatment is *perceived* as less than fair, then this can have negative repercussions (McHale et al., 2000).

Understanding parentôs perspectives around differential treatment is also important along with considering that these perspectives may differ from how their children perceive the way they are treated (Kowal, Krull & Kramer, 2004). In previous literature, parents have

rarely been asked to divulge their rationale behind their differential treatments and it must be considered that although children may perceive it as unfair, parents may perceive it as fair (Kowal et al., 2004). Kowal et al. (2004) found that family members are inclined to have unique perceptions about the fairness of differential treatment. Furthermore, the perceptions of fairness were found to be associated with the quality of relationships established between parent and child for example, high levels of differential control reported by adolescents were linked to parentsô perceptions of lower amounts of warmth and higher amounts of hostility in the parent-child relationship when this type of differential treatment was deemed to be unfair (Kowal et al., 2004). The low levels of agreement between parents and children regarding perceptions of differential treatment are consistent with the previous literature (Aquilino, 1999; Feinberg, Neiderhisen, Howe & Hetherington, 2001a; Larson & Richards, 1994). A significant factor to take away from this study is that perhaps clear communication between children and parents in regards to rationale and experiences of differential treatment would facilitate understanding of underlying reasons for and childrenôs experiences of this treatment (Kowal et al., 2004).

Cultural factors are also important to consider as some collectivist cultures expectations and family roles are more differentiated by gender and age and this is more culturally acceptable (Feinberg et al., 2012). In considering PDT, we can gain knowledge and insight into associations between sibling relationships and inter-parental discord within the family system (Feinberg et al., 2012). Adlerôs theory of individual psychology mentioned earlier relates well to differential treatment in regards to social comparisons and power dynamics in families and these relating to the individualôs self-concept.

Empirical Investigations into the Impact of Parenting Practices on Sibling Relationships

A literature search was conducted on Google Scholar and the Ebscohost database which included the ógeneral/newsô, óeducationô, óhealth sciencesôand ópsychology/sociologyô databases. The search terms included ñparentingò and ñsibling relationshipò and ñproblem behaviourò (which was interchanged with ñchallenging behaviourò, ñdifficult behaviourò and ñantisocial behaviourò). The search excluded results for adolescents and only considered results from academic journals. The purpose of this search was to uncover all empirical research that had been conducted specifically in regard to parenting and its association with the sibling relationship and that supported further research in this area. This resulted in 121 articles. After filtering these to exclude ones about other disorders such as autism the final result was eight relevant articles. These are presented in Table 1 and 2 below.

Bryant and Crockenberg (1980) conducted a correlational study in California and compared Mothersôbehaviour toward two different aged daughters and the daughtersôpro-social behaviour toward each other. They also considered the relationship between pro-social and non-physical antisocial child behaviour and the relationship between parent behaviours and these antisocial behaviours. They studied 50 first born daughters who were in the fourth or fifth grade and their sisters who were two to three years younger and their mothers. They found that there was a strong relationship between motherôs responsiveness to her childôs needs and irregular antisocial and frequent pro-social interactions. Further to this they found that if a mother meets the expressed needs of their child, this is more likely to facilitate pro-social interactions between siblings than modelling pro-social behaviour (Bryant & Crockenberg, 1980). There was also evidence for differences in the effect of the motherôs behaviour on the childrenôs social interactions depending on how each child was treated compared to the other. Lastly, they found that the siblings influenced each other behaviour, particularly the older sibling to the younger sibling (Bryant & Crockenberg, 1980). The

researchers discuss the limitations of the study in that it was a solely female, non-clinical, middle class sample which limits its generalizability to other genders, social classes and a clinical population (Bryant & Crockenberg, 1980).

Many families are referred to parenting programmes who have at least one child with behaviour problems or externalising disorders such as Oppositional Defiant Disorder (ODD). It is important to consider the relationship between sibling conflict and these behaviour difficulties. Garcia, Shaw, Winslow and Yaggi (2000) conducted a longitudinal study and assessed the relationship between sibling conflict and conduct problems in 180 families in Pittsburgh with at least two children. The target children were male and were nearing one and a half years of age at the recruitment stage. Data was collected when the target child was two, five and six years of age. They found that destructive sibling conflict was directly related to delinquent behaviour (as reported by the mother) (Garcia et al., 2000). There was an interaction between órejecting parentingô and destructive sibling conflict and this accounted for the unique variance in the prediction of destructive behaviours after controlling for certain variables. These findings suggest that the paths toward developing aggressive and delinquent behaviours are relatively different. The researchers note that this study was limited by the participants being from low socio economic status and only having male target children. Furthermore, only interactions between the target child and their closest in age sibling were taken into account. Other siblings may have had a large impact on sibling conflict and this would have been beneficial to consider. These factors limit the generalizability of the results (Garcia et al., 2000).

Another longitudinal study was conducted by Hao and Matsueda (2006) and was based on data from the National Longitudinal Study of Youth (1979) which studied 12,686 American youths aged from 14-21. Their sample included 5808 of these youths who had behaviour problems and a second sample of 4354 of their siblings. They examined child

behaviour problems in middle childhood and the impact of structural changes in the family and parenting practices. The research showed that longer exposure to poverty in early childhood is linked with higher problem behaviours in middle childhood which is not mediated by current parenting practices. Further to this, physical punishment has a detrimental effect and is linked with child behaviour problems (Hao & Matsueda, 2006). It was noted by the researchers that this study was limited by not controlling for certain variables such as childrenôs temperament and PDT and not including effects on the sibling relationship (Hao & Matsueda, 2006).

Perlman, Garfinkel and Turrell (2007) considered parent and sibling influences on the development of conflict management strategies in children in Canada over two years. They assessed 37 two parent families who had two preschool aged children. They found that parents and siblings have a significant influence on the way children manage their sibling conflict. Children do not only model or imitate their parents and siblings behaviour but are also influenced by other factors such as gender and birth order (Perlman et al., 2007). It was recognised by the researchers that the small sample size limited this study and restricted the generalizability of the findings. In addition to this they mention that ten of the families had the birth of a new child over the two years and this may have had an impact on the way conflict was managed and modelled in the families (Perlman et al., 2007).

In a study conducted by Recchia and Howe (2009), they assessed whether the relationship between parents socialisation of constructive conflict approaches and childrenôs positive conflict behaviours differs as a function of sibling relationship quality. They undertook a cross-sectional, non-experimental study with 62 6-8 year old children with an older (7-10 years) or younger (4-7 years) sibling and their primary caregivers. Their data produced results indicating that sibling conflict strategies become more refined with age and when the parent and both siblings were involved in conflict resolution discussions, being

older in age as a sibling was associated with more future planning, talking about own perspectives and justifying solutions and perspectives (Recchia & Howe, 2009). Younger siblingôs age was associated with justifying their behaviour perspectives only. Interestingly, interacting with an older sibling resulted in the target child referring more to their own perspectives compared with when interacting with a younger sibling. When sibling relationship quality was high, this linked with caregivers being more future oriented in triadic discussion which was associated with siblings being more future oriented in dyadic discussions. Similarly, when sibling relationship quality was high, caregivers past orientation was positively linked with dyadic compromise (Recchia & Howe, 2009). In this study the researchers identify that the sample was mostly Caucasian which limits findings to other ethnicities and cultures. Furthermore, that no home observations were completed and discussions of conflicts were completed in a controlled setting which limits the ecological validity of the findings. The study had a small sample size and unfortunately only two of the six associations they collected data for produced significant effects (Recchia & Howe, 2009).

Several of these studies considered sibling conflict in particular while others consider family processes and their influence on the sibling relationship in general. A great benefit of some of these studies was that they were a longitudinal design which gives great insight into the quality of sibling relationships over time. In addition to the limitations mentioned by the researchers of the literature, additional aspects were noted that may have limited results. Many studies had small sample sizes of majority Caucasian, middle class families. They often only included one parent in the research due to feasibility issues in including both parents and furthermore, much of the research utilised limited measures where in many cases it would have been beneficial to have used questionnaires, interviews and observations to triangulate results. Moreover, often measures were used only with one or both of the parents. Using them with the siblings as well to get their perceptions and to triangulate the data would

have been valuable and increased the reliability of the results of these studies (Bryant & Crockenberg, 1980; Garcia et al., 2000; Hao & Matsueda, 2006; Perlman et al., 2007; Recchia & Howe, 2009).

Table 1

Empirical Investigations into the Impact of Parenting Practices on Sibling Relationships

Programme/Author	**Participants**	**Implementation**	**Study Design**	**Measurements**	**Findings**	**Limitations:**
Bryant and Crockenberg (1980)	Fifty first born daughters in the 4th or 5th grade, their sisters who were 2-3 years younger and mothers.	Mothers and their two daughters playing games.	Correlational study.	Parents and children: Direct observations during play activities, interview with the mother.	A strong relationship between motherôs responsiveness to her childôs needs and irregular antisocial and frequent pro-social interactions between her and her children was found. Siblings influence each otherôs behaviour, particularly the older sibling on the younger sibling.	Non-clinical sample of middle class participants who were all female. Only the mother was interviewed.
Garcia, Shaw, Winslow and Yaggi (2000)	180 families in Pittsburgh. Mothers with at least two children at home. The sample is from a larger study. The male target child was nearing 1.5 years old at the recruitment stage.	Observations and motherôs reports were collected when the target child was 2, 5 and 6 years old.	Longitudinal design.	Parent: Observations using the Early Parenting Coding System, Child Behaviour Checklist. Teacher: Child Behaviour Checklist. Children: Observations using the Sibling Conflict Coding System.	Destructive sibling conflict was directly related to delinquent behaviour as reported by the mother but not by the teacher. The interaction between rejecting parenting and destructive sibling conflict accounted for unique variance in the prediction of destructive behaviours after controlling for certain variables. This suggests that the paths toward developing aggressive and delinquent behaviours are relatively different.	Families were lower socio economic status which limits the studies generalizability to other social classes. All of the target children were male which limits the generalizability to that gender. Only mothers were used as informants. Interactions with the target child and closest in age sibling only were taken into account. It could have been beneficial to consider the conflict between all siblings.

Hao and Matsueda (2006)	Data is used from the 1979 National Longitudinal Study of Youth which is based on 12,686 American youths aged 14-21. From this they had a ócomplete sampleô of 5808 children who had behaviour problem assessments and a second sample called the ósibling sampleôwhich had 4354 children.	Parents were given various questionnaires.	Based on a longitudinal design.	Parents: Achenbach Behaviour Problems Checklist, measures of childhood exposure to changes in family structure, poverty and other variables, short form Home Observation Measurement of the Environment, Armed Forces Qualification Test.	Longer exposure to poverty in early childhood is linked with higher problem behaviours in middle childhood. This is not mediated by current parenting practices. Physical punishment has a detrimental effect and is linked with child behaviour problems.	Did not control for certain variables such as childrenôs temperament or PDT. Measures with the children were not completed. The use of observations, questionnaires and interviews with the children and interviews with the parents would have been beneficial. More of a focus on the impact on sibling relationships would have improved this study.
Perlman, Garfinkel and Turrell (2007)	Thirty seven two parent families with two preschool aged children in Canada.	Data was collected at two different time periods two years apart. Six 90 minute in home observations were conducted and coded at each time period.	Longitudinal design.	Parents and children: observations.	Parents and siblings have a significant influence on the way children manage their sibling conflict. Children do not only model or imitate their parents and siblings behaviour but are influenced by other factors as well such as gender and birth order.	The researchers recognise the small sample size which affects the generalizability of the findings. 10 families had births of new children over the time of this study which may have had an impact on the way conflict was managed and modelled.

Recchia and Howe (2009)	Sixty two 6-8 year old children with an older (7-10 years old) or younger (4-7 years old) sibling and their primary caregivers.	Children endeavoured to resolve a recurring conflict with their sibling. Their primary caregiver helped them to discuss and try and resolve a different conflict. Two sessions ten days apart.	Cross-sectional, non-experimental design.	Parents: verbal contributions to conversations were coded, outcomes of negotiations were coded. Children: 20 item measure of sibling relationship quality, verbal contributions to conversations were coded, outcomes of negotiations were coded.	Siblingôs conflict strategies became more refined and constructive with age. In triadic discussions, older age was associated with more future planning, talking about own perspectives and justifying solutions and perspectives. Younger siblings age was only associated with justification for behaviour perspectives. Unexpectedly, interacting with an older sibling resulted in the target child referring more to their own perspective compared with when interacting with a younger sibling.	Primary caregivers were majority mothers and families were mostly Caucasian. Researchers noted that only two of six associations produced significant effects. No home observations were completed, only discussions of conflicts in a controlled setting, this limits ecological validity as noted by the researchers. Small sample size.

Empirical Investigations into the Impact of Parental Differential Treatment on Siblings

Coldwell, Pike and Dunn (2008) examined child outcomes in relation to Maternal Differential Treatment (MDT) in the United Kingdom. They considered 173 families with at least two children. The average age of the older sibling was 7.4 years and the average age of the younger sibling was 5.2 years. They found that children reported larger amounts of MDT than did mothers and there were moderate links between childrenôs adjustment and MDT. Furthermore, difference scores (differences in childrenôs scores on measures) and favouritism scores (asking which sibling was more favoured) do not measure the same construct and difference scores are more informative and predictive of childrenôs outcomes (Coldwell et al., 2008). It was recognised by these researchers that the study was limited due to perceptions of fairness and justification of MDT as these aspects were not addressed in the study. Furthermore, the direction of the association between PDT and childrenôs adjustment could not be established.

Deater-Deckard, Smith, Ivy and Petril (2005) considered PDT and assessed to what extent parentôdifferential perceptions of their childrenôs challenging behaviour varies with their differential feelings about their children. They used a subset of the Northeast-Northwest Collaborative Adoption Project sample in the United States. This resulted in 486 genetically unrelated sibling pairs and their mother. The children were an average of 8 years old and the sibling was on average three years apart in age (Deater-Deckard et al., 2005). It was found that parentsôjudgements of their children are a critical factor in parenting stress processes and that perceptions vary in the mind of the parent depending partly, on how they perceive their childrenôs attributes. Mothers reported viewing their children differently and the child who was considered to have more behaviour problems was regarded with less positivity and more negativity (Deater-Deckard et al. 2005). The researchers recognise that this study is limited by the fact that 95% of parents were European American, upper socio economic status and

had genetically unrelated adopted children. Results cannot be generalised to other social classes, ethnicities or genetically related siblings and families.

Parental Differential Treatment appears to be getting more recognised in studies and is becoming more of a focus in the research. Meunier et al., (2011) conducted a multilevel longitudinal study in Belgium over two years with three waves of data collection. They examined the Absolute Level of Parenting (ALP) and PDT and their change over time in relation to predicting externalising behaviour problems in children. Parental self-efficacy, child personality and sibling relationships were also considered as predictors. They collected data from 119 families with a pre-schooler who had been referred for externalising behaviour problems and were between 3-5 years of age and had at least one sibling. The results revealed that the target child received more support than negative control from their parents but were also disfavoured compared to their closest in age sibling (Meunier et al., 2011). This result indicates that a parent will offer more positive parenting to a child who is disfavoured by the other parent. The level of ALP and PDT remained stable over the two years however, changes in externalising behaviour problems fell (as reported by parents). The latter supports the notion that childrenôs externalising behaviour problems generally decrease in the pre-school period. Interestingly, children were sensitive to both ALP and PDT from the mother, but only ALP from the father (Meunier et al., 2011). Externalising behaviour trajectories were more positive when children experienced high levels of ALP and favourable PDT. However, disfavoured children had worse trajectories when experiencing only high rates of ALP. This indicates that changes in parents ALP may be predictive of externalising behaviour problems. Further findings from this research indicate that the better adapted the personality traits of the child, externalising behaviour problem baseline rates were lower as was sensitivity to PDT which resulted in the overall trajectory being better (Meunier et al., 2011). Lastly, negative sibling relationships predicted higher rates of externalising behaviour

problems when this was associated with favouring the target child. The researchers noted that the results of this study were limited in that they are unable to be generalised to non-referred samples, different social classes and cultures. Furthermore the sample size was relatively small and additional data could have been collected through interviewing the children (Meunier et al., 2011).

This research looked at different aspects of PDT and gave great insight into its impact on sibling relationships and child outcomes and the varying perceptions of PDT. The research discussed had additional limitations such as small sample sizes and that often no data was gathered from the children or the fathers. This limits the reliability of the data as it solely relies on motherôs reports and perceptions (Deater-Deckard et al., 2005; Meunier et al., 2011).

Table 2

Empirical Investigations into the Impact of Parental Differential Treatment on Siblings

Programme/Author	Participants	Implementation	Study Design	Measurements	Findings	Limitations:
Coldwell, Pike and Dunn (2008)	173 UK families with at least two children. Average age of the older sibling was 7.4 years and the average age of the younger sibling was 5.2 years.	Families were visited in their homes and mothers and children completed interviews and mothers and fathers separately completed questionnaires.		Parents: Expression of Affection Inventory (mother report), Parental Feelings Questionnaire (mother report), Parental Discipline Interview (mother report), Parent-child Conflict (mother report), Strengths and Difficulties Questionnaire (both parents). Children: the Berkley Puppet Interview.	It was found that children reported larger amounts of MDT than did mothers and there were moderate links between children's adjustment and MDT. Furthermore, difference scores (differences in children's scores on measures) and favouritism scores (asking which sibling is more favoured) do not measure the same construct and difference scores are more informative and predictive of children's outcomes.	It is recognised that perceptions of fairness and justification of MDT was not addressed in this study. Furthermore, that the direction of the association between Parental Differential Treatment and children's adjustment could not be established.

Deater-Deckard, Smith, Ivy and Petril (2005)	Northeast-Northwest Collaborative Adoption Project sample of 1797 adoptive families in the United States. A subset of this sample was used of 486 genetically unrelated sibling pairs and their mother. The children were an average of 8 years old and siblings were typically three years different in age.	Motherôs perceptions assessed using variety of questionnaires/scales.	Comparison study.	Parent: Parent Feelings Questionnaire, Strengths and Difficulties Questionnaire. Parental Modernity Scale.	Parentsô judgments are a critical factor in parenting stress processes. Perceptions vary in the mind of the parent depending partly, on how they perceive their childrenôs attributes.	Ninety five percent of parents were European American and were of upper socio economic status. No data was gathered from the children. Only motherôs perceptions were taken into account.

Meunier, Roskam, Stievenart, Moortele, Browne and Kumar (2011)	In Belgium 119 families with a pre-schooler (3-5 years old) referred for externalising behaviour problems.	Three waves of assessment on a yearly basis. Time one when they were first recruited ï parents completed questionnaires, at time two and time three parents repeated these questionnaires and child was observed at school and at time two the child filled out a questionnaire.	Multilevel longitudinal design (two years) over three waves.	Parents: semi structured interview, Anger-Aggression subscale of the French version of the Social Competence and Behaviour Evaluation, Evaluation des Pratiques Educatives Parentales, Echalle Globale du Sentiment de Competence Parentale, Bipolar Rating Scales, Sibling Inventory of Behaviour. Children: observations at school using the SNAP game, Hostility and Affection Scales of the Sibling Relationships Inventory.	Target child received more support than negative control from their parents but were also disfavoured compared to closest in age sibling. A parent will offer more positive parenting to a child who is disfavoured by the other parent. Level of ALP and PDT remained stable. Change in externalising behaviour problems (reported by parents) fell each year supporting idea that childrenôs externalising behaviour problems generally decrease in preschool period. Observations indicated no significant change in this area. Children were sensitive to ALP and PDT from the mother but only ALP from the father. EBP trajectories were more positive when children experienced high levels of ALP and favourable PDT. Disfavoured children had worse trajectories when experiencing high rates of ALP rather than low rates. Changes in parents ALP may be predictive of EBP; increased parental negativity shown to worsen EBP. The better adapted the personality traits of the child; EBP baseline rates were lower as was sensitivity to PDT and the trajectory better. Negative sibling relationships predicted higher rates of EBP when this was associated with favouring the target child.	The researchers note that parental reports may be bias by personal factors and experiences. The majority of the sample were boys and the vast majority were Caucasian. Most families were working/middle class families. Results are limited for generalizability to non-referred samples, different socio economic groups, genders and cultures. The samples size was also relatively small. The researchers also noted that the SNAP game was perhaps not the best option for observations as the target child could choose their own partner who researchers had no data on.

Background to Parenting Programmes

Families are often referred to parenting programmes for parenting difficulties with children with problematic behaviour. These problems can intensify following entry to school and put children at risk for academic difficulties, depression, peer rejection, substance abuse, delinquency and school dropout (Arseneault, Moffitt, Caspi, Taylor & Silva, 2000; Brody et al., 2003; Campbell, 1995; Fergusson & Horwood, 1995; Fergusson & Horwood, 2001; Fergusson, Horwood & Lynskey, 1994; Fergusson, Horwood & Ridder, 2005; Fergusson & Lynskey, 1996; Reid, 1993; Webster-Stratton, 1990). Parents participating in parenting programmes tend to have a problematic child with behaviour problems. In the general population, the prevalence rates for ODD and Conduct Disorder (CD) is approximately 12% and is one of the most common reasons for referral of young children to mental health services (Reid, 1993). Fergusson, Horwood and Ridder (2005) examined the outcomes of having conduct problems in childhood on later developmental outcomes in adulthood. The results of this study are drawn from the 25-year longitudinal Christchurch Health and Development Study of a birth cohort of over 1000 New Zealand youth. The participants were studied at birth, four months, one year and once a year from then until they were 16 years old, and at 18, 21, and 25 (Fergusson et al., 2005). It was found that the degree of conduct problems over the age of 7-9 years is related to greater risks of adverse consequences in various areas of functioning at age 21-25. These areas included crime, substance use, mental health and sexual/partner relationships. This study presents a life course perspective on the longer term consequences of early conduct problems for adjustment in adulthood and justifies the need to intervene early and prevent these outcomes (Fergusson et al., 2005). This study did not consider the effects of these early conduct problems on later sibling and family relationship quality but did however; indicate the need to employ programmes aimed at ameliorating conduct problems and reducing family adversity.

In relation to these conduct problems; Patterson (1986) put forward the sibling trainer hypothesis which suggests that the siblings of a child who has disruptive behaviour problems essentially add to the problem childôs disruptive behaviour by being involved in negative interactions with the problem child. Patterson (1986) revealed that the level of negative interactions and hitting between siblings and problem children is higher in clinic referred families than normal families. Stormont-Spurgin and Zentall (1995) provided support for this finding and found that the siblings of pre-schoolers who were both aggressive and hyperactive were more than two times as likely to use a reactive style where they would respond to aggression with physical or verbal aggression themselves. Findings such as this suggest that treatment for disruptive children and their parents may need to be extended to include sibling relationship management to maximise treatment effectiveness (Brestan, Eyberg, Boggs & Algina, 1997; Stormont-Spurgin & Zentall, 1995).

Patterson (1982) observed that ócoercive cyclesôare more likely to be engaged in with parents with aggressive children. Coercive cycles refer to when a child demonstrates increased levels of aggressive behaviour (even if it is just temporary, such as due to stress or hyperactivity); this can result in a high chance that the parent or sibling will react similarly, thereby escalating the issue. If the parent or sibling is ineffective in successfully managing the childôs aggressive behaviour when it occurs, they may become more irritable, overwhelmed and exhausted, and the child may escalate further since their aggression has been rewarded or reinforced in the short term. Essentially overtime, both parents and children contribute to this ótraitôof aggression through this coercive cycle (Reid & Patterson, 1989). Patterson (1982) explained this phenomena via the social learning theory and indicated that this process escalates disruptiveness in the family. Crick and Dodge (1994) support this with their finding that harsh parenting and unresolved anger in parents is associated with the likely development of behavioural styles, cognitions and emotion regulation strategies that tend to

increase sibling conflict. Children with CD, who have learnt to use aggression at home, generalise those destructive behaviours toward others as their social environments expand, such as, at school (Arseneault et al., 2000). Findings such as these have led to a range of clinical applications resulting in the knowledge that positive and proactive behaviour is linked with reduced levels of problem behaviours in children that may be maintained over time (Denham, Workman, Cole, Weissbrod, Kendziora & Zahn-Waxler, 2000; Gardner, Sonuga-Barke & Sayal, 1999).

There are a number of ways to address parentôs concerns regarding their children. These methods include: home visits for families with children at risk of developing problematic behaviours, parent training programmes, school based programmes for improving management of behaviours in the classroom and at home and clinical programmes using manualised therapies (Fergusson et al., 2004). Various approaches to parenting programmes exist and range from self-directed training to working with parents in didactic group situations to individual one on one sessions with just the parent or with the target child present as well and sometimes various combinations of these (Eyberg & Matarazzo, 1980; Scott, 2002; Thomas & Zimmer-Gembeck, 2007). Different programmes also have different foci, some have a broad focus and attempt to address numerous issues in the home and some have a more minimally sufficient focus where they believe making a significant change in one area will initiate a chain of behavioural changes in other family systems (Eyberg & Robinson, 1982).

Parenting Programmes

Parent training behavioural management programmes originated in the United States in the 1960ôs and are increasingly popular for use with children with problematic behaviours in the home. These programmes have a large evidence base and were originally based on

behavioural learning theory which was developed by Skinner in 1953 and social learning theory which was established in the 1960ôs (Eyberg & Matarazzo, 1980; Scott, 2002; Thomas & Zimmer-Gembeck, 2007). In these programmes the parents are used as the agent of change and parents are taught to manage contingencies around childrenôs social behaviours (Scott, 2002). Contingencies refer to the ôeffectô between the childôs specific behavioural response and the frequency and consistency that the response has been reinforced or punished. The consequences of behaving a particular way then shapes the behaviour. This is achieved through the principles of reinforcement (Skinner, 1969). This overarching principle is included in most parent training programmes. During the parent training sessions therapists actively teach such principles of positive reinforcement and how not to inadvertently reinforce negative behaviours and/or coercive interaction patterns but replace these with new strategies such as positive reinforcement, selective ignoring and successful use of consequences such as time out (Sanders, 1999; Sanders, 2008; Scott, 2002). Some programmes also have a focus on cognitive processes and incorporate techniques of cognitive therapy into their sessions (Scott, 2002).

There are a various well researched parenting programmes. Three of the well-established parenting programmes are Incredible Years (IY), Parent-Child Interaction Therapy (PCIT), and the Triple P Positive Parenting Programme (Triple P). These parenting programmes have different content and delivery techniques (Eyberg & Matarazzo, 1980). Incredible Years has a strong evidence base for its effectiveness in enhancing parenting competencies and lowering childrenôs disruptive behaviours and maintaining these results (Webster-Stratton, 1990; Webster-Stratton, 1998). It ranges from a basic level of training for parents to more intensive alternatives (Webster-Stratton, 1990). Parent-Child Interaction Therapy and Triple P are founded in social learning theory and attachment theory and are widely disseminated in Australia, the United States and New Zealand (Thomas & Zimmer-

Gembeck, 2007). Parent-Child Interaction Therapy and Triple P demonstrate efficacy and are empirically supported and suitable for use with children with externalising behaviours and antisocial behaviour (Sanders, 1999; Sanders, 2008; Schumann, Foote, Eyberg, Boggs & Algina, 1998; Thomas & Zimmer-Gembeck, 2007). Social learning is used to direct attention towards the family memberôs interactions as being the basis of the problem rather than placing blame on the child or parents (Thomas & Zimmer-Gembeck, 2007). Parent-Child Interaction Therapy and Triple P are individualised interventions for parents/caregivers with children aged from approximately 3-10 years and have a focus on positive parenting, appropriate consequences for misbehaviour and differential reinforcement. In addition, positive reinforcement of the parent while interacting with their child is used (Sanders, 1999; Schumann et al., 1998; Thomas & Zimmer-Gembeck, 2007).

The Triple P Programme. Triple P is an evidence based multilevel system of intervention for parents with the aim to provide quality parenting advice to parents (Sanders, 1999; Sanders, 2008; Sanders, Markie-Dadds & Turner, 2002). The programme is designed to prevent severe behavioural, developmental and emotional problems in children and adolescents. This is done by enhancing parentsôconfidence, skills and knowledge (Sanders, 1999; Sanders, 2008). The development of self-regulation is a central goal of Triple P; this is the process where participants are taught skills to alter their own behaviour and develop into becoming independent problem solvers in a wider social environment that supports family bonds and parenting (Graaf, Speetjens, Smit, Wolff & Tavecchio, 2008; Sanders, 1999; Sanders, 2008). Triple P has five levels of intervention; Level One is a media based parent information campaign targeted at all parents who are interested in information about parenting and supporting their childrenôs development. Level Two is called Selective Triple P and involves advice and material around specific parenting concerns. This is targeted at parents who may have particular worries about their childôs behaviour or development. Level

Three is called Primary Care Triple P and has a narrow focus on parenting skills training. This is targeted at parents who have particular concerns about their childôs behaviour or development and who need sessions and discussions or active skills training. Level Four can be covered in a variety of approaches; Standard, Group and Self-Help. These have a broad focus on parenting skills training and are targeted at parents who want intensive training in positive parenting skills. This level is usually for parents of children with more severe behaviour problems for example, conduct problems. Lastly, Level Five is called Enhanced Triple P and has intensive behavioural family intervention models. This level is targeted at parents of children with co-existing child behaviour problems and family dysfunction (Sanders, 1999; Sanders, 2008).

For the purpose of this study, Level Four Standard Triple P was provided. This level is designed for parents who require intensive training in positive parenting skills and runs for six to fourteen sessions. Typically this programme is designed for parents of children with behaviour problems such as aggressive or oppositional behaviour but who do not yet meet diagnostic criteria for a behavioural disorder (Sanders, 1999; Sanders, 2008). There are five core positive parenting principles which are covered in Standard Level Four Triple P.

- A safe and engaging environment for example, discussions are held in relation to children needing a safe, supervised and protective environment with opportunities to explore and play.

- A positive learning environment for example, teaching parents to respond in a positive and constructive way to interactions initiated by the child such as using descriptive praise and incidental teaching.

- Assertive discipline for example, teaching parents behaviour change strategies and child management in replacement of more ineffective discipline approaches. An example of managing misbehaviour that is taught is using planned ignoring.

- Realistic expectations for example, causes of childrenôs behaviour and the parents expectations are explored along with their beliefs and assumptions around this. Goals for change are then selected for both the child and parent.

- Parental self-care for example, encouragement for parents to address their needs for self-care and well-being in order to be an effective parent (Sanders, 1999; Sanders, 2008).

Active skills training methods are utilised. These methods involve modelling, role plays, feedback, homework tasks and self-selected goals to practice (Sanders, 1999). In the current study, Triple P ran for nine sessions where new content was taught and there was one practice session mid-way where parents could practice their new skills and get direct feedback from the researcher. In addition to this, supplementary practice sessions were offered to parents if they felt it was necessary. All four families completed a total of 10 sessions (nine content sessions with one practice session).

Triple P has been demonstrated to be an effective intervention in changing risk and protective factors for children (Sanders, 1999; Sanders, 2008). There is good quality evidence from a number of randomised clinical trials that shows that enhancing positive parenting practices and decreasing dysfunctional parenting practices results in improved mental health and developmental outcomes in children (Sanders, 1999; Taylor & Biglan, 1998).

Research into Triple P began in 1977 and since then many series of controlled evaluations with both intra-subject designs and randomised control group designs have been

carried out (Sanders, 1999). Sanders, Markie-Dadds, Tully and Bor (2000) undertook a comparison of the Triple P Enhanced, Standard and Self-Directed behavioural family intervention for parents of children with early onset conduct problems with 305 families who had a three year old child in Australia. The families were considered to be high risk on the basis of having elevated rates of disruptive behaviour, increased levels of parental conflict, maternal depression, single parenthood status or low socio economic status. Parents were randomly allocated to one of the three variants of Triple P or a wait list control group. The Enhanced group combined a partner support and coping skills intervention to provide a comprehensive additional component for those families (Sanders et al., 2000). Mothers and fathers reports, parent monitoring of child behaviour and independent behaviour observation were utilised and resulted in demonstrating that the two therapist assisted groups (Standard and Enhanced Triple P) produced similar improvements and were linked with significantly reduced levels of observed and parent reported disruptive child behaviour, decreased levels of dysfunctional parenting, increased parental competence and enhanced consumer satisfaction compared to the Self-Directed and wait list groups (Sanders et al., 2000). By one year follow up however, all three levels (apart from the wait list control) achieved similar levels of clinically reliable change in the childôs disruptive behaviour. The results of this research indicate that more is not always best and that a minimally sufficient approach can be beneficial and, that the Enhanced family intervention should be set aside for families who donôt make adequate improvements after standard behavioural family interventions (Sanders et al., 2000). These findings also provide further support for the efficacy of Triple P as an intervention programme for parents of children with disruptive behaviour (Sanders et al., 2000).

It is important to consider maintenance effects of parenting programmes and their longer term outcomes. Sanders and Glynn (1981) conducted a study on training parents in

behavioural self-management and analysed the generalisation and maintenance effects. Five two parent families in New Zealand participated and each family contained at least one pre-school aged child who presented with continuous management difficulties for their parents. It was found that teaching self-management skills to parents subsequent to initial training in behaviour modification skills resulted in the generalisation of the programme implementation to a variety of social settings and these were maintained over time (Sanders & Glynn, 1981). This demonstrated that the combination of instructions, feedback and self-management skills (such as planning ahead, goal setting, self-monitoring and planning engaging activities to keep children busy), seems to generate stronger generalisation effects for both child and parent behaviour than instructions and feedback alone (Sanders & Glynn, 1981).

Parent-Child Interaction Therapy. Eyberg, Funderburk, Hembree-Kigin, McNeil, Querido and Hood (2001) conducted a long term follow up of families treated with PCIT. They looked at 20 families with children aged 3-6 years referred for treatment for CD. Parent report, child report and observational measures were used. Results indicated that the long term follow up scores demonstrate statistically significant improvements from pre-treatment levels. For example, mothers reports of child behaviour problems and parenting stress remained at the levels reported two years earlier following completion of PCIT and 54% of children remained free of diagnoses of disruptive behaviour disorders (Eyberg et al., 2001). These findings emphasise the effectiveness of PCIT in accomplishing long term gains in interactions between parents and children in daily life. The use of a larger sample size and a non-treatment control would have been beneficial to assess such aspects as effects of maturation. Furthermore, this study is limited by having a time-limited protocol rather than performance based where families continue with treatment until they demonstrate mastery of skills. The final sample of children resulted in a small sample that consisted of all boys; this

limits the generalizability of these research findings which could have been enhanced with the sample included girls as well (Eyberg et al., 2001).

Research indicates that parent training programmes may produce collateral effects on various other aspects of family life; more specifically, that the skills taught during training may have spill over effects into parentsô more global interactions with their children resulting in more positive family relationships (Arnold, Levine & Patterson, 1975; Brestan, Eyberg, Boggs & Algina, 1997; Koegel & Bimbela, 1996). Past research has overlooked the effect of parent training programmes on other family members and has mainly focused on the treatment gains made by the child with problematic behaviours (Eyberg & Robinson, 1982; Hastings, 2003; Humphreys, Forehand, McMahon & Roberts, 1978; Koegel & Bimbela, 1996). Research that has considered more global effects has found that the specific type of parent training makes a difference on whether it produces generalised effects into other aspects of family life and furthermore, studies that have found generalising effects often had the siblings involved in treatment as well as the target child. This attributes change to participation in the treatment itself rather than behaviour changes in the parents (Humphreys et al., 1978; Koegel & Bimbela, 1996). One study that did not involve all children in the treatment found that the behavioural skills that the parents learned to use with the problem child had been used towards the untreated children as well hence, improving overall family relationships (Humphreys et al., 1978). It is essential to replicate and develop results such as these in order to clarify whether the familyôs participation in parenting programmes has an overall beneficial effect on other family relationships in particular, the quality of the sibling relationships.

Empirical Investigations into the Effects of Parenting Programmes on the Parent(s), Target Child and Untreated Sibling(s)

A literature search was conducted on Google Scholar and the Ebscohost database which included the ógeneral/newsô, óeducationô, óhealth sciencesôand ópsychology/sociologyô databases. The search terms included ñparenting programmeò and ñsibling relationshipsò. The search excluded results for adolescents. The purpose of this search was to uncover all empirical research that had been conducted specifically around parenting programmes and sibling relationships that informs the current research and supports further investigations into this area. This resulted in 80 articles. After filtering to include only those articles that included behaviour problems this resulted in seven relevant articles. Table 3 represents the four empirical investigations into the effects of parenting programmes on the parents, target child and untreated siblings (Arnold et al., 1975; Brestan et al., 1997; Eyberg & Robinson., 1982; Humphreys et al., 1978). Table 4 represents the three empirical investigations into the effects of parenting programmes on the parent and sibling relationships (Kennedy & Kramer, 2008; Lipman, Kenny, Brennan, OôGrady & Augimeri, 2011; Tiedemann & Johnston, 1992).

Table 3 indicates there is a small amount of evidence to suggest that participation in parenting programmes can lead to changes in the interactions between the problematic child and parents and that this can generalise to parent sibling exchanges, hence, reducing sibling relationship problems without direct intervention (Arnold et al., 1975; Eyberg & Robinson, 1982; Humphreys et al., 1978). Arnold et al. (1975) assessed deviant behaviour rates of 55 siblings from 27 families of boys who were three years or older who had a diagnosis of CD. The families were from lower socioeconomic class. The parents were trained in social learning techniques of child management and applied these in the home. Results clearly supported their hypothesis that the effects did indeed generalise to the siblings as well, lowering rates of deviant behaviour however, as the skills were applied in the home they were

essentially treating both siblings. These results were maintained at the six month follow up. It would appear then, that the sets of skills that parents were learning, were being applied to the siblings as well as the referred child (Arnold et al., 1975). The researchers recognised that this study was limited by having the majority of families from lower socio economic status and only considering males (Arnold et al., 1975).

Further to this, a study by Brestan et al. (1997) considered parentsô perception of sibling generalisation with a randomised control group design. Unlike many previous studies they included fathers and their expectations in regards to the behaviour problems of siblings. Thirty siblings of children referred for disruptive behaviour were studied. The referred children were between 3-6 years old of both genders and met criteria for ODD. Their siblings were 2-16 years old. The referred children were split into a waitlist group and an immediate treatment group. Parent-Child Interaction Therapy was the training programme used and parents were taught various skills such as discipline skills and relationship building skills. Fathers, mothers and the referred child attended treatment sessions and parents were instructed not to use the new skills with the referred childôs siblings. Results indicated that parents perceived the behaviour of untreated siblings as better than those in the wait list control post treatment. Mothers revealed little change in frequency of behaviours but saw the behaviours as less distressing and less difficult to manage. In contrast, fathers recorded improvements in the frequency of problem behaviours post treatment. Parentsôratings reflect improvements in behaviour of the siblings and significant differences were found between treatment and control conditions for both mothers and fathers ratings of the untreated siblings and referred children. The researchers suggest that this study may be limited due to the fact that parents may have rated siblings as improved to satisfy the therapists. Furthermore, to enhance the study, direct observation could have been employed as a check of parentsô perceptions (Brestan et al., 1997).

Eyberg and Robinson (1982) examined the impact of PCIT on the target child and their untreated sibling. They considered seven families who had a target child between 2-7 years old who had been referred for treatment for behaviour problems in the home. They had were require to have at least one sibling between 2-10 years old. The families were observed playing together twice prior to PCIT beginning and twice after PCIT had concluded. In between these times the parent(s) had individual one hour weekly sessions of PCIT with the target child. The siblings did not participate in this treatment (Eyberg & Robinson, 1982). The researchers found that parents improved in their behaviours and interactions toward the children which resulted in positive behaviour changes in the target child. As a result of this, all children (including siblings) had changes in less deviant and demanding behaviours and were more compliant. Ultimately, treatment effects generalised to the untreated sibling as well (Eyberg & Robinson, 1982). The researchers recognised that a limitation of this study was that a wait list treatment control group would have been beneficial for comparison. Further to this, the study may have been enhanced by adding extra measures such as interviews with the parents for triangulation of results and including more families as participants (Eyberg & Robinson, 1982).

Similar to this, Humphreys et al., (1978) assessed changes in untreated siblingôs behaviour as well as changes in parentôs behaviours toward the untreated sibling following a behavioural training programme that focused on the target childôs non-compliance at home. They considered eight families with a mother and two siblings. The target children were all male and were on average 77.6 months old and were referred for treatment for non-compliant behaviour problems. The sibling closest in age was studied and was on average 60.6 months old (Humphreys et al., 1978). The researchers interviewed each mother to determine the primary problems and then observations were conducted prior to beginning the treatment. The mother then underwent the behaviour training programme which was aimed at modifying

the target childôs non-compliance at home. Following this a second set of observations were conducted (Humphreys et al., 1978). It was found that the parent significantly changed their behaviour which resulted in the target childôs behaviour changing and their compliance increasing significantly. Parentôs also changed their behaviour toward the untreated sibling without direct instruction from therapists and this resulted in the untreated siblingôs compliance also increasing. This indicates that positive changes in parentôs behaviour is associated with increases in untreated siblingôs compliance even when they are not a focus of the parenting programme (Humphreys et al., 1978). This study would have been enhanced with additional measures other than observations alone. Interviews could have been a valuable addition to enhance the findings.

This research gave great insight into the effects of parenting programmes on untreated siblings and considered various parenting programmes. Further to the limitations mentioned by researchers, often very few measures were used in the above research which limits the reliability of the data (Arnold et al., 1975; Brestan et al., 1997; Eyberg & Robinson, 1982 Humphreys et al., 1928).

Table 3

Empirical Investigations into the Effects of Parenting Programmes on the Parent(s), Target Child and Untreated Sibling(s)

Programme/Author	Intervention	Participants	Implementation	Study Design	Measures	Findings	Limitations:
Arnold, Levine and Patterson (1975)	Parent training in social learning techniques.	Twenty seven families referred to the Social Learning Project at Oregon Research Institute. One or more boys from each family had severe conduct disorder. Fifty five siblings of the 27 referred children were studied who were 3 years or older.	Families received average of 31.5 hours to be taught social learning techniques. Six to ten baseline observations completed prior to intervention and periodic observations were conducted at four week intervals. For first six months during follow up, two observations with probes from therapists conducted monthly and then once at eight, 10 and 12 months.	Pre post comparison.	Children: pre and post observations.	Results for comparing rates of deviant behaviour of the referred child to that of their sibling(s) were non-significant. The family intervention (aimed at the target child) generalised to the siblings as well decreasing their deviant behaviour too. Results maintained at 6-12 month follow up.	Majority of familiesô lower socio economic status. Very few measures used, this limits the reliability of the data. Only boys were studied which limits the generalizability of results.

Brestan, Eyberg, Boggs & Algina, (1997)	PCIT.	Thirty siblings of children referred for disruptive behaviour and parents. Siblings both genders. Referred children between 3-6 years and siblings 2-16 years old.	Referred children split into waitlist group and immediate treatment group. PCIT used and parents taught various skills. Fathers, mothers and referred child attended treatment sessions and parents instructed not to use new skills with the referred childôs siblings.	Randomised control group design.	Parents: Wonderlic Personnel Test, DSM III R structured interview for disruptive behaviour disorders, Eyberg Child Behaviour Inventory. Children: Peabody Picture Vocabulary Test.	Parents perceived behaviour of untreated siblings as better than those in the wait list control post treatment. Mothers revealed little change in frequency of behaviours but saw behaviours as less distressing and difficult to manage. Fathers recorded improvements in the frequency of problem behaviours post treatment. Parentsôratings reflect improvements in behaviour of the siblings and significant differences were found between treatment and control conditions for both mothers and fathers ratings of the untreated siblings and referred children.	Direct observation could have been employed as a check of parentsô perceptions. Majority of referred children were male. Small sample size. Did not consider the effects on sibling relationship quality.
Eyberg & Robinson (1982).	PCIT.	Seven families with a target child between 2-7 years old referred for treatment for behaviour problems. At least one sibling between 2-10 years old.	Two pre-treatment and two post-treatment assessment sessions where parents were observed with each child. The referred child and the parent(s) had individual one hour weekly sessions of PCIT. Siblings did not participate.	Pre-post comparison.	Parents: Dyadic Parent-Child Interactions Coding System Children: Dyadic Parent-Child Interactions Coding System	Parents changed their behaviours and interactions which resulted in behaviour changes in the target child. As a result, all children had changes in less deviant behaviours and demanding behaviour and were more compliant. Treatment effects generalised to the untreated sibling.	A wait list treatment control would have been beneficial for comparison.

Humphreys, Forehand, McMahon & Roberts (1978)	Parent behavioural training to modify target childôs non-compliance.	Eight families with mother and two siblings. One sibling referred for treatment for non-compliant behaviour problems. Average age of target child 77.6 months and all were male. Mean age of untreated sibling 60.6 months.	Each mother interviewed to determine primary problems. Observations conducted. Mother underwent behaviour training aimed at modifying target childôs non-compliance. Post observations conducted.	Pre-post comparison.	Parents and children: mother and untreated sibling observed during four to eight pre-treatment and four post-treatment observations.	Parent behaviours changed significantly and as a result the target childôs behaviour and compliance increased significantly. The change in parent behaviour towards the untreated sibling arose without direct instruction by the therapist. Untreated siblingôs compliance also increased indicating that changes in parentôs behaviour is associated with increases in untreated siblingôs compliance even if they are not a focus of the treatment.	The only measure used was observations, it would have been beneficial to include interviews with the children and parent and gain their perceptions through questionnaires.

Empirical Investigations into the Effects of Parenting Programmes on the Parent and Sibling Relationships

Table 4 indicates toward the effects parenting programmes have on family relationships and childrenôs behaviour. Kennedy and Kramer (2008) conducted a randomised trial to assess the More Fun With Sisters and Brothers (MFWSB) programme and considered the contributions of emotional regulation in promoting the quality of the sibling relationship. They considered 95 families with at least two children aged 4-8 years of age. Families were randomly assigned to an experimental group or a wait list comparison group. Families were visited prior to beginning the programme and again following the programme along with sibling dyads in the intervention group receiving five one hour training sessions (Kennedy & Kramer, 2008). Findings supported the efficacy of the programme for enhancing emotion regulation abilities and sibling relationship quality. In addition, parents reported less sibling conflict and agonistic behaviours (this was not found through the direct observations). The researchers identify that this study is limited due to the majority of participants being Caucasian, middle class and from intact families therefore the results cannot be generalised to other socio economic statuses. Furthermore, this sample cannot be generalised to a clinical population due to the sample being comprised of typically developing children. It would have been beneficial to gain the childrenôs perspectives on the quality of their sibling relationship as well as the parents to triangulate the findings (Kennedy & Kramer, 2008).

The Stop Now and Plan (SNAP) Under 12 Outreach Program (ORP) is another programme that has been evaluated. Lipman et al. (2011) in Canada looked at 35 families with a 6-11 year old boy who has had police contact or is considered at risk to have police contact. Over a 12 week period participants were put into groups to undergo the ôTransformer Clubô for boys and SNAP parent group for parents and a sibling group where 2-12 year old siblings participated and were introduced to some SNAP concepts (Lipman et al., 2011).

They found that families perceived that the target child had increased social competence, improved anger management skills and development of social skills and increased socially acceptable behaviour. In turn, this resulted in improved parent-child relationships along with sibling relationships and a decrease in negative interactions. It was noted by researchers that this study was limited due to the majority of participants being lower socio economic status meaning that it is unable to be generalised to other social classes. This study also relied solely on self-report and had no external validation which means that results may have been affected by bias or social desirability factors. The use of observations and questionnaires would have been beneficial to account for this (Lipman et al., 2011).

Lastly, Tiedemann and Johnston (1992) assessed whether a parenting programme could produce changes in sibling sharing, parentsô feelings of competence, childrenôs general social behaviour and the sibling relationship. They considered 48 families with two children between the ages of 2.6 and 6.11 years old with no other children. Children must have had parent reported difficulties but otherwise be developing normally. Sixteen families received immediate individual treatment, 16 received immediate group treatment and 16 were in a wait list control. They found positive effects on childrenôs sharing behaviours in sibling interactions. This had a wider positive impact on social development and behaviour problems. The individual treatment group produced more significant effects on observed child behaviour (Tiedemann & Johnston, 1992). It was recognised by researchers that this study had short observation sessions which may have limited findings. Furthermore, only the childrenôs mother was used as an informant, including the fathers would have been beneficial to compare perceptions. The relatively small sample size and the use of a non-clinic, intact, middle class population limits the generalizability of these results.

This research highlights the effects parenting programmes have on different relationships in the family and their effects on childrenôs behaviour. In addition to the

limitations recognised by the researchers and similar to previous limitations mentioned, the use of a larger sample size and more measures would be greatly beneficial to the reliability of the findings from these studies. Furthermore, including using measures with children and both parents would enhance the results (Kennedy & Kramer, 2008; Lipman et al., 2011; Tiedemann & Johnston, 1992).

Table 4

Empirical Investigations into the Effects of Parenting Programmes on the Parent and Sibling Relationships

Programme/Author	Intervention	Participants	Implementation	Study Design	Measures	Findings	Limitations:
Kennedy and Kramer (2008)	More Fun With Sisters and Brothers (MFWSB).	Ninety five families with at least two children aged 4-8 years.	Families randomly assigned to experimental group (N=55) or wait list comparison group (N=40). Families visited in their home one week prior to programme starting and again after the programme. Sibling dyads in intervention group received five one hour MFWSB training sessions. The MFWSB programme was also evaluated.	Randomised trial with experimental group and wait list comparison group.	Parents: questionnaires (Emotional Regulation Scale, modified version of the Parental Expectations and Perceptions of Childrenôs Sibling Relationships Questionnaire). Children: pre and post observations of sibling interactions (the Sibling Interaction Quality coding system).	Findings support efficacy of a preventive intervention for enhancing emotion regulation abilities and sibling relationship quality in siblings. Improvements in the quality of the sibling relationship found after participation in MFWSB programme. Furthermore, parents reported less conflictual and agonistic behaviours in siblings however, observational measures found no significant declines.	Majority of participantôs Caucasian, middle class and from intact families. Did not include a clinical population so cannot be generalised to children experiencing severe problems in their sibling relationship or development. Would have been beneficial to gain childrenôs perspectives on the quality of their sibling relationship and their ability to regulate emotions.

Lipman, Kenny, Brennan, OôGrady and Augimeri (2011)	SNAP.	Thirty five families in Canada with 6-11 year old boy who has had police contact or is considered at risk.	Over 12 week period participants put into groups to undergo ôTransformer Clubô for boys and SNAP parent group for parents. A sibling group (Kidz Club) allowed siblings to participate in a group where they were introduced to some SNAP concepts. The SNAP programme was also evaluated.	Embedded mixed methods.	Parents and children: semi-structured interviews.	Families perceived the programme to have increased social competence in boys. Improvements in anger management skills, development of social skills and increased socially acceptable behaviour which resulted in improved parents and sibling relationships (as reported by parents and children). Parents reported feeling more competent and communicating better with their children and a decrease in negative interactions. While qualitative results showed improvements in boyôs social competence, quantitative results showed non-significant improvements. Overall, participation contributed to enhanced child behaviour and parent management skills and healthier family relationships.	Majority of participants from lower socio economic status and economic disadvantage. This study relied solely on self-reports and had no external validation meaning that results may have been affected by bias and social desirability. Observations and the use of questionnaires would have been beneficial.

Tiedemann and Johnston (1992)	Five session parenting programme.	Forty eight families with two children between 2.6 years and 6.11 years of age with no other children. Children must have had parent reported difficulties but be otherwise developing normally.	Sixteen families received immediate individual treatment, 16 received immediate group treatment and 16 received treatment after the follow up assessments were completed. Pre, post and follow up questionnaires, interviews and observations were conducted.	Treatment comparison with wait list control.	Mother: Vineland Socialisation Scale, Child Behaviour Checklist, Sharing Knowledge Questionnaire, Parenting Strategies Questionnaire, Sharing and Sibling Interaction Questionnaire, Sibling Interaction Questionnaire, Parenting Sense of Competence Scale, observations. Children: individual interviews, observations. Adult other than mother: Sharing and Sibling Interaction Questionnaire.	Positive effects on childrenôs sharing behaviours in sibling interactions were demonstrated following the parent training intervention. This had a wider positive impact on social development and behaviour problems as well. Group and individual formats produced similar results compared to the control however, the individual method resulted in significant effects on observed child behaviour and was rated higher on consumer satisfaction.	Observations used in this study were limited in being short. Longer observations would have provided richer data. Only the mother was used in this study as an informant, including the fathers would have been beneficial. Small sample size and used a non-clinic, intact, primarily middle class group of participants which limits its generalizability.

Rationale for the Current Study

The literature mentioned above highlights the importance of considering the effects of parenting programmes on sibling relationships and on the quality of the sibling relationship. While conflict in sibling relationships is considered relatively normative and common, physical violence within sibling relationships is reported in 70% of families (Stocker et al., 2002) and should be addressed through evidence based parent training programmes. In light of the literature on the effects and impact of quality sibling relationships, it is essential to consider sibling conflict along with other family relationships and dynamics (McHale & Crouter, 1996; Stocker et al., 2002). One of the most frequent sources of disagreement and arguments between parents and adolescents is over sibling relationships and conflicts (Feinberg et al., 2012). In turn, parents can become disengaged and their ability to monitor and interrupt sibling conflict and participation may be disrupted (McHale & Crouter, 1996).

The importance of considering wider family relationships and interactions of families participating in parent training programmes is important. This is because, clinically, it is essential to be responsive and attentive to the family outcomes particularly given how common participation in parenting programmes is around the world (Hastings, 2003). These programmes have been shown to have a positive effect on sibling interactions and adjustment and exploring this is a vital addition to research as it may be an imperative factor to consider for the maintenance of positive changes in the target child (Brestan et al., 1997; Hastings, 2003).

Siblings of referred children, although less problematic, are still subject to the same risk factors as the referred child. If treated, improved sibling behaviour can result in lower rates of family stress and combined with increases in parenting skill from the parenting programme both aspects contribute to the maintenance of treatment effects (Brestan et al.,

1997). Improvements made in the sibling relationship through parenting programmes could help alleviate the challenges that arise when moving from childhood through to adolescence and then to adulthood (Richmond et al., 2005).

No research has been found specifically on the effects of the Triple P Programme and its impact on the quality of the sibling relationship. Furthermore, most research appears to target parents, usually mothers, and focus on minimising problem behaviours of the target child and problematic family interactions instead of encouraging positive interactions (Feinberg et al., 2012). Other research focused on general sibling relationships and how this influences childhood adjustment and well-being (Branje et al., 2004; Dunn et al., 1994; Hetherington & Clingempeel, 1992; Kim et al., 1999; Meunier et al., 2012; Richmond et al., 2005; Stocker et al., 2002; Waldinger et al., 2007). There appears to be a gap in the research in regards to parenting programmes and their effects on the interactions between parents, the target child with problematic behaviours and their sibling(s). Although sibling behaviour may be less deviant than the problematic childôs behaviour, siblings are still subject to the same familial risk factors as the problematic child.

Primary Research Questions

The purpose of this study was to investigate the effects of the Triple P Level Four Parenting Programme on the interactions/relationship between the target child and their sibling and the interactions/relationship between the parent(s) and target child and sibling.

This study sought to determine 1) whether Triple P had an effect on parent and target child positive and negative behaviour, 2) what effects Triple P had on the interactions between the target child and their sibling and the parent and the target child and sibling, 3) post Triple P, whether positive interactions between the target child and their sibling

increased and negative interactions decreased and, 4) whether positive interactions between the parent and the target child and sibling increased and negative interactions decreased.

Chapter Two

Method

Ethical Considerations

Before participant recruitment and data collection, ethical approval was sought and obtained from The University of Canterbury Human Ethics Committee (see Appendix A). Informed consent from the families was obtained at the first meeting and signed by the parents. Consent forms for the children were signed on their behalf by the parents after the study had been explained to them. Children were only included in the study if their parents consented to them doing so. Assent was obtained from the children verbally by explaining their role in the study and that there would be a video camera taking pictures of them.

Those families wishing to join the study who met the criteria first were selected. Participation in the study was voluntary and parents and their children were able to withdraw at any point without consequences. The identity of each participant was kept confidential by assigning a pseudonym to each participant.

Research Design

This study used mixed quantitative and qualitative methods. The quantitative measures utilised a single case design to measure the effectiveness of the programme across repeated measures of behaviour across time and involved two observations of the participants to systematically measure changes in interactions (Barlow, Nock, & Hersen, 2009).The effect of the intervention on the parent, target child and sibling was measured using pre and post outcome measures. This thesis utilised an AB design with follow up; this is an improvement on the AB design alone as it attributes changes in target behaviours to the intervention phase as well as ensuring that improvements made in the B phase do not disappear over time

(Riley-Tillman & Burns, 2009). Self-report was also used as this and is valuable for assessing the feelings, thoughts, attitudes and perceptions of participants own behaviour as well as perceptions of others (in this case, siblings) (Gardner, 2000). The qualitative measures consisted of semi-structured interviews with the mother and the children individually. The qualitative measures were taken before the intervention (with the children) and after the intervention (with the children and parent individually) to capture themes in parental and child perceptions of the target child and siblings as well as their experience with the intervention.

Multiple use of methods is beneficial to increase reliability of findings and ensure that what is directly observed is consistent with what is reported by parents. Studies have shown significant relationships between observational methods and self-report indicating that both sources provide unique information (Gardner, 2000).

Participants

Selection criteria. Participants were included in this study if they (1) had a target child aged between three and ten years of age with problematic behaviours (defined as behaviours which parents found difficult and challenging to manage but that had not previously met a formal diagnosis); (2) the target child had at least one sibling of between the ages of 2-12 years old; (3) the target child, mother and sibling co-habited; and (4) the target child and sibling had the same mother.

Recruitment. The participants for this study were recruited from centre operating from a University in New Zealand. The family centre informed parents (via email) of the opportunity to be involved in this study and invited them to volunteer to participate. Of a total of 24 families who were invited, nine expressed an interest in participating. Of these, five families were not included. Reasons included, one parent had only one child, one parent

withdrew her interest in the study, one parent had previously participated in a Triple P programme, one parent had shared custody so it was not feasible to carry out all the sessions in the time frame available and the final parent had children who did not meet the criteria for the study. As a result four families (eight sibling dyads) met the studyôs criteria and volunteered to participate.

An initial screening phone call to the interested parents was then conducted and if they met criteria for selection an initial meeting, to ensure suitability and answer questions, was set up at a venue (the clinic or the participants home) of their choice. Information and consent sheets for the parents and children were emailed to the participants describing the aims of the study, how the study would be carried out, and the proposed outcome of the study (see Appendix B, C, D, and E). Two participants were interviewed at home and two were interviewed in the centre. These interviews gathered information on family circumstances, demographics, behaviour of the target child and sibling, goals for the programme and general health of the family. The interview was based on the standard Triple P interview form (Sanders, Markie-Dadds & Turner, 2007, p. 299-310) and asked questions about parent/target child and sibling typical daily interactions prior to beginning the parenting programme. Examples of questions in the initial interview were ñtell me about the target child and sibling. Tell me about that, from the beginning, were you living here? What is that like having two children of that age? How do they get along? Tell me about a typical day in your home.ò This took approximately 30-60 minutes.

Participant characteristics. The fathers of the children were invited to but did not actively participate in the parenting programme however, all four families came from an intact two parent household. Three of the four fathers were the biological father of both children, one family consisted of the target child, living with his mother and stepfather who had a different biological father to his sibling. The sibling dyads consisted of eight children

who were of good health according to their mothersô reports. All of the children were living with their sibling(s) and parent(s). See Table 5 for demographic information.

Table 5

Demographic Information of Participants

	Children's Age at Time of Recruitment	**Language Spoken in the Home**	**Ethnicity**	**Gender Constellation**	**Birth Order**	**Other Siblings**
Family One	*Target child:* 4.2 years *Sibling:* 2.1 years	English	New Zealand European	*Target child:* Male *Sibling:* Female	*Target child:* 1 of 2 *Sibling:* 2 of 2	None
Family Two	*Target child:* 8.4 years *Sibling:* 6.0 years	English	New Zealand European	*Target child:* Male *Sibling:* Male	*Target child:* 1 of 3 *Sibling:* 2 of 3	One younger sibling
Family Three	*Target child:* 8.5 years *Sibling:* 6.9 years	English	New Zealand European	*Target child:* Male *Sibling:* Male	*Target child:* 1 of 3 *Sibling:* 2 of 3	One younger sibling
Family Four	*Target child:* 6.6 years *Sibling:* 5.5 years	English	New Zealand European	*Target child:* Male *Sibling:* Male	*Target child:* 1 of 4 *Sibling:* 2 of 4	Two younger siblings

Measures

Continuous behaviour measure.

Behaviour diary. This study required parents to keep a day to day diary of changes in the target childôs behaviour over the course of the programme to enable the researcher to note when and if changes started to occur, what these changes were and what accounted for them. Parents were requested to track certain specific behaviours such as sibling conflict and target

child tantrums and note the date, occurrence and any notable changes in these behaviours. These notes were kept in a day to day diary over the course of the parenting programme. The diary had spaces to note what the behaviour was, the context it occurred in, who was involved, what happened before and after and whether this was typical behaviour or had the behaviour changed (for instance, got worse or got better).

Pre-post outcome measures.

Questionnaires. *Parent-Child Relationship Inventory (PCRI).* This study acquired pre and post intervention parental reports of the motherôs perceived relationship with their target child and sibling using the PCRI for both children (Gerard, 2000). The advantage of the PCRI was that it provided a more in-depth analysis on the effectiveness of the Triple P Programme for each family. The purpose of the PCRI is to gain the parentsô perceptions on their parenting practices and their children. This is a 78 item questionnaire that has a four point Likert scale from strongly agree to strongly disagree and contains questions such as ñI get as much satisfaction from having children as other parents doò and ñMy child is out of control much of the timeò. All the 78 items were administered. The PCRI is designed to give an overall picture of the quality of the parent-child relationship and has good validity and reliability (Coffman, Guerin & Gottfried, 2006; Gerard, 2000). The 78 items are divided into seven scales; the *Parental Support* Scale assesses the level of emotional and social support a parent receives, the *Satisfaction with Parenting* Scale assesses the amount of pleasure and fulfilment the individual receives from being a parent, the *Involvement* Scale measures the level of a parentôs interaction with and knowledge of their child, the *Communication* Scale examines how effectively the parent perceives they communicate with their child, the *Limit Setting* Scale focuses on the experience the parent has had with disciplining their child, the *Autonomy* Scale measures the capability of a parent to encourage their childôs independence and the *Role Orientation* Scale which assesses parentsô attitudes about gender roles in

parenting (Gerard, 2000). Results for the *Role Orientation* Scale were not included as they were not applicable to this study. For the PCRI each score for each question (scores ranged from one to four) corresponded with a certain subscale, the scores for each subscale were added together to come up with a total score for each subscale. These total subscale scores yielded T-scores which were different depending on whether the mother or father filled out the questionnaire. These scores were then rated as either being in the *'high', 'borderline'* or *'low'* range. Good parenting attitudes are represented by the *'high'* scores while *'low'* scores are representative of possibly problematic parenting (Gerard, 2000). For all of the subscales, a T-score of less than 30 is indicative of the possibility of serious problems while scores exceeding 40 suggests the parent has attitudes consistent with good parenting (Gerard, 2000). Social desirability scores were also calculated to decipher if parents ratings were swayed by the influence of the researcher. Inconsistency scores were calculated to ensure parents were scoring items consistently.

To estimate the internal consistency of the PCRI scales a standardisation sample was used by Gerard (2000). The outcome indicated that the overall internal consistency of the PCRI is good with a median value of 0.82 and no value falling below 0.70 (Gerard, 2000). The PCRIôs has good temporal stability (Gerard, 2000). Gerard (2000) conducted studies which portrayed the long term reliability of responses to the PCRI. The mean scale autocorrelation score (0.55) was by far within the satisfactory range for attitude and personality measures (Gerard, 2000). The content validity process conducted by Gerard (2000) aimed to ensure that the items when grouped together appropriately characterised important parenting attitudes and values.

The Parenting Scale (Revised). Motherôs reported on their parenting capacity using the Parenting Scale (Revised) (Arnold, OôLeary, Wolff & Acker, 1993). The Parenting Scale (Revised) is a 30 item questionnaire to obtain parents perceptions on their parenting

capabilities and style. All of the 30 items were administered. This questionnaire has a seven point Likert scale where parents can rate themselves somewhere along the scale depending on the question (Arnold et al., 1993). The 30 items are divided into four scales; the *Laxness* Scale which refers to permissive and inconsistent discipline, the *Over Reactivity* Scale which refers to punitive, emotional, authoritarian discipline and irritability, the *Hostility* Scale which refers to the use of vocal or physical force and the *No Factor* Scale which are the items that do not load onto any of the other scales. Each subscale score (excluding the *No Factor* Subscale) and the *Total Scale Score* were rated as either *'normal'*, *'borderline'* or *'clinical'*. *'Normal'* indicated there were no concerns in this area of parenting, *'borderline'* was indicative of being on the cusp of having no concerns in that area to bordering on having more serious difficulties, and *'clinical'* suggests that this is an area of definite difficulties where families are at risk of these difficulties worsening if there is no intervention (Arnold et al., 1993). For mothers, scores of 3.6 or above for the *Laxness* Scale, 4.0 or above for the *Over Reactivity* Scale, 2.4 or above for the *Hostility* Scale and 3.2 or above for the *Total Score* are indicative of being in the *'clinical'* range (Arnold et al. 1993). A sample of 168 mothers was used to evaluate the Parenting Scales internal consistency. The factor and total scores coefficient alphas were 0.83 for *Laxness*, 0.82 for *Over Reactivity*, 0.63 for *Hostility* and the *Total Score* was 0.84 (Arnold et al., 1993). The test retest reliability was examined over a two week time frame with a subgroup of 22 mothers. Results of the correlations were 0.83 for *Laxness*, 0.82 for *Over Reactivity*, 0.79 for *Hostility* and 0.84 for the *Total Score*. The Parenting Scaleôs factor structure was found to be consistent with past research and theory (Arnold et al., 1993).

Observations. *Direct observations.* Observations were done once before the parenting programme commenced (as a baseline measure) and again after the programme was completed and were based on the Parent-Child Interaction Coding Scheme (P-CICS) which

was developed for parent/child interactions (Church, 2011). At the parentsô home or in the psychology centre, a video was set up and the mother, target child and sibling were observed participating in a play activity (playing with Lego) for 25 minutes and were then instructed by the mother to all help pack the Lego away. A frequency count was used which removes the duration aspect of behaviour and is suitable where the interactions are relatively uniform in duration (Bailey & Burch, 2002). This was a useful method as more than one behaviour could be recorded at once (Bailey & Burch, 2002). Please refer to Table 6 for the parent-child codings. Observations lasted 30 minutes. Observations were mostly done in the home but due to family circumstances, some observations were undertaken in the clinic setting.

It is important to consider that during a direct observation, interactions may be affected by the presence of the recording equipment or by the presence of the researcher (Gardner, 2000). In laboratory settings however, little is known about reactive effects to video recordings. It has been suggested by Hartmann and Wood (1990) that the age of the child being observed may influence reactivity. Other limitations of observational techniques involve that they are time consuming to undertake and one needs to be trained to carry out observations (Gardner, 2000). The positive aspect of undertaking a direct observation is that consistency and reliability is ñdefined by the researcher rather than the parentò and direct observations eliminates systematic personal bias (Gardner, 2000, pg. 186). Video recording is beneficial during observation as it can be preserved for later coding or reliability checks and even re-analysed later in light of new research (Gardner, 2000).

Table 6

Parent-Child Codes

Column A: Parent initiations	*Column B: Child responses and child initiations*	*Column C: Parent reactions and responses*
CR Compliance request, command, or question. **CRNO** Compliance request but no opportunity for child to comply.	**CR** Child responds to compliance request.	☺ Positive (or neutral) reaction to the child behaviour, compliance response or remark in Column B.
PQ Parent initiates talk about a new topic with a statement or question.	**R** Child replies or continues the current conversation.	☹ Negative reaction to the child behaviour, compliance response or remark in Column B.
PT Parent makes another contribution to the current conversation.	**CQ** Child requests, initiates conversation, asks a question.	**NR** No response to current child behaviour (behaviour ignored).
	ã Appropriate response to CR or R (for example, complies, plays nicely, answers nicely). **X** Inappropriate response to CR or R (for example, child whines, argues, ignores, throws, hits).	

Note. (Church, 2011, p. 4).

The parent-child interactions observed included parent initiation of a request or comment; the childôs response to this request; whether they complied or not; if it was an appropriate response; the childôs initiation of a request or comment and the parentôs reaction to this. Positive and negative interactions such as questions and statements were also recorded along with behaviours such as whining, arguing, refusing, pushing, hitting, throwing tantrums, threats, swearing, throwing things and so on (Church, 2011).

An example of the coded interaction between a parent, target child and sibling is provided below in Table 7.

Table 7

Example of Coded Interactions between the Parent, Target Child and Sibling

	Parent initiation of a request or comment	**Child response or child initiation**	**Parent reaction or response to child's behaviour**
Code	PQ	Rã	R☺
Example	ñWhat would you like to play with?ò	ñI want to play with the lego.ò	ñThat sounds like a nice idea.ò

Another coding scheme was used and this was based on the P-CICS. This recording focused on the interactions between the target child and their sibling. A frequency count was used during the coding of these interactions. In addition, to recording the type of play being engaged in during the observation, a duration form of recording was used. This was used to evaluate the length of time spent in each type of play over the 25 minute period before packing up. These observations were based on positive and negative physical interactions such as turn taking, sharing, hugging, hitting and snatching; verbal interactions such as giggling, praising, expressing verbal enthusiasm, quarrelling, teasing and name calling. Also considered during the sibling observations was the type of play being engaged in; cooperative play, solitary play or parallel play. Table 8 below represents the codings for the target child-sibling interactions.

Table 8

Target Child-Sibling Codes

Column A/B: Positive and negative physical interactions	*Column C/D: Positive and negative verbal interactions*	*Column E: Physical or verbal response to the initial interaction*	*Column F: Physical or verbal reaction to the response in Column E*	*Column G*
Code: TC, P, S PP=initiates positive physical interaction	Code: TC, P, S CR=compliance request or command	Code: TC, P, S R= responds to compliance request RP= responds to the physical interaction	Code: TC, P, S ☺R = positive (or neutral) reaction to the behaviour, response or remark in column E	TCS= target child solitary play SS= sibling solitary play
NP= initiates negative physical interaction	TCQ= target child requests, initiates conversation, asks a question	ã= appropriate response to CR (e.g. complies, plays nicely, answers nicely)	☹R= negative reaction to the behaviour, response or remark in column E	TCSC=target child and sibling cooperative play TCPC=target child and parent cooperative play SPC=sibling parent cooperative play TCSPC=target child, sibling and parent cooperative play
	SQ= sibling requests, initiates conversation, asks a question	X= inappropriate response to CR (e.g. child whines, argues, ignores, throws, hits etc.)	NR= no response to current child behaviour (behaviour ignored).	TCP=target child parallel play SP=sibling parallel play

Qualitative measures. *Child interviews.* This study involved pre and post interviews with the target child and sibling separately. These were conducted in the family home or at the family center and were in quiet rooms with little distraction. They involved gathering

information through asking various questions to elicit responses regarding family life while the children drew pictures of their home and family. Child interviews involved discussing confidentiality and how they could respond if they did not want to answer the question with ódonôt know training.ôThe researcher requested the children to draw their house and family and talk about each family member. Weekend activities, feelings, house rules and what games they like to play were also discussed. These interviews lasted for approximately 20-30 minutes and were done with both the target child and sibling for all families excluding one where the sibling was considered to be too young to understand (2 years old). The purpose of these interviews was to gain the childôs perceptive on each family member and their family activities.

Parent interview. A parent interview (with the mother) was also conducted at the close of the programme completion approximately ten weeks later. Similarly, these interviews were conducted in the family home or at the family centre and were in quiet rooms with little distraction to increase the reliability of the data. Various questions were asked to elicit certain responses on how they perceived the success of the programme and if they observed any changes in their childrenôs behaviours. The semi-structured interview was designed to gain the parents perceptions of the effects of the parenting programme with regards to the sibling relationship and their relationship with the target child and sibling. The interview involved questions such as ñhow has the programme worked out for you and your familyò and ñhave you noticed any changes between the target child and closest in age siblings relationship, if so what?ò (For a copy of the questions refer to Appendix G).

Procedure

Baseline assessment. The setting for the baseline measures was the parentsôchoice of either the family home or the clinic. The Parenting Scale (Revised) and the PCRI was first administered to the parent. After this, the 30 minute direct observation then occurred. The

researcher then interviewed the target child and sibling separately. This took approximately 30-90 minutes. The video was then viewed and coded in the family centre at the University by the researcher and one other person for 25% of the videos for inter-observer reliability.

Intervention. After the baseline measures were completed the four parents undertook the Standard Level Four Triple P Positive Parenting Programme in the home setting. This was administered by the researcher under the supervision of senior psychologists. The parents also completed their day to day diary of behaviours.

Post intervention assessment (approximately six to twelve weeks later). This was a replication of the direct observation taken at baseline and the semi-structured interview and set of questionnaires (the Parenting Scale (Revised) and the PCRI). The post intervention assessment took approximately 30-60 minutes.

Data Analysis

Continuous behaviour data was graphed using Microsoft Office Excel. The standard protocols for scoring the PCRI and the Parenting Scale (Revised) were used and results were entered into pre/post tables using Microsoft Office Word and these were visually analysed.

Direct observations were analysed by entering the data into pre/post tables and using visual analysis to detect changes. The final interview with the parent and the interviews with the children were analysed by looking at the content of the responses to each of the researcherôs questions and comparing them to the other familiesô responses. Content that was pertinent to the research questions was collated.

Reliability

Data was collected using the standard protocol for the questionnaires and test. The coders obtained 91% agreement on the sibling coding scheme and an 83% agreement for the parent-target child-sibling coding scheme.

Chapter Three

Results

The data were collected from the four families over a twelve week period. Results are presented with the continuous behaviour diary first and then the quantitative pre/post measures followed by the qualitative measures. The group data and individual data was analysed through graphs and tables and for the interviews, devising thematic groupings.

Some issues arose during data collection. Some direct observations were completed during a busy time for the family where full focus could not be given by the parent to the target child and closest in age sibling due to other siblings being present. All behaviour diaries were returned to the researcher, however, some parents did disclose that they forgot to fill it in on some days and instead, filled some parts in from memory. The parent participating in the Triple P Programme attended every session of the parenting programme. Some sessions needed to be delayed due to family sicknesses but were completed at a later date.

Continuous Behaviour Measure

Day to day diary of changes in behaviours. For the children in Families One and Two the frequency of problem behaviours in the target child during baseline exceeded the frequency of occurrence of conflict with their sibling. Families Three and Four had more sibling conflict than problem behaviours in the target child at baseline.

Family One. *Target child behaviour.* At baseline the target childôs number of problem behaviours was on 10. At follow up, the target childôs number of problem behaviours decreased to one.

Sibling conflict. Following the beginning of the Triple P Programme there was an initial decline in the rate of sibling conflict from three to one which was followed by a

recovery of sibling conflict back to three and then a gradual decline until follow up where sibling conflict was at one instance.

Figure 2 presents the amount of target child problem behaviour and sibling conflict in Family One weekly, from baseline through to the follow up.

Family Two. *Target child behaviour.* The number of target child problem behaviours was at six at baseline and this decreased to three at follow up.

Sibling conflict. At baseline there was one instance of sibling conflict. This number varied between one and zero during the programme and remained the same as baseline at follow up.

Figure 3 presents the amount of target child problem behaviour and sibling conflict in Family Two weekly, from baseline through to the follow up.

Family Three. *Target child behaviour.* Target child problem behaviour was at three instances at baseline. At follow up target child problem behaviours declined to zero.

Sibling conflict. Family Threeôs rate of sibling conflict began at four instances at baseline and then varied with a decline towards the end of the intervention. Sibling conflict increased again at follow up to three instances but still remained below their baseline rate.

Figure 4 presents the amount of target child problem behaviour and sibling conflict in Family Three weekly, from baseline through to the follow up.

Family Four. *Target child behaviour.* Target child problem behaviours sat at one instance at baseline. This increased to three instance at follow up.

Sibling conflict. Sibling conflict sat at two instances during baseline and substantially increased to five at follow up.

Figure 5 presents the amount of target child problem behaviour and sibling conflict in Family Four weekly, from baseline through to the follow up.

Three of the four families had a lower number of problem behaviours occurring in the target child at follow up compared to baseline and two of the four families had less occurrences of sibling conflict at follow up compared to baseline while one family remained unchanged and the other had an increase. Three out of four families had a peak in target child problem behaviours during week four or five and three out of four families had a peak in sibling conflict at approximately week three or four.

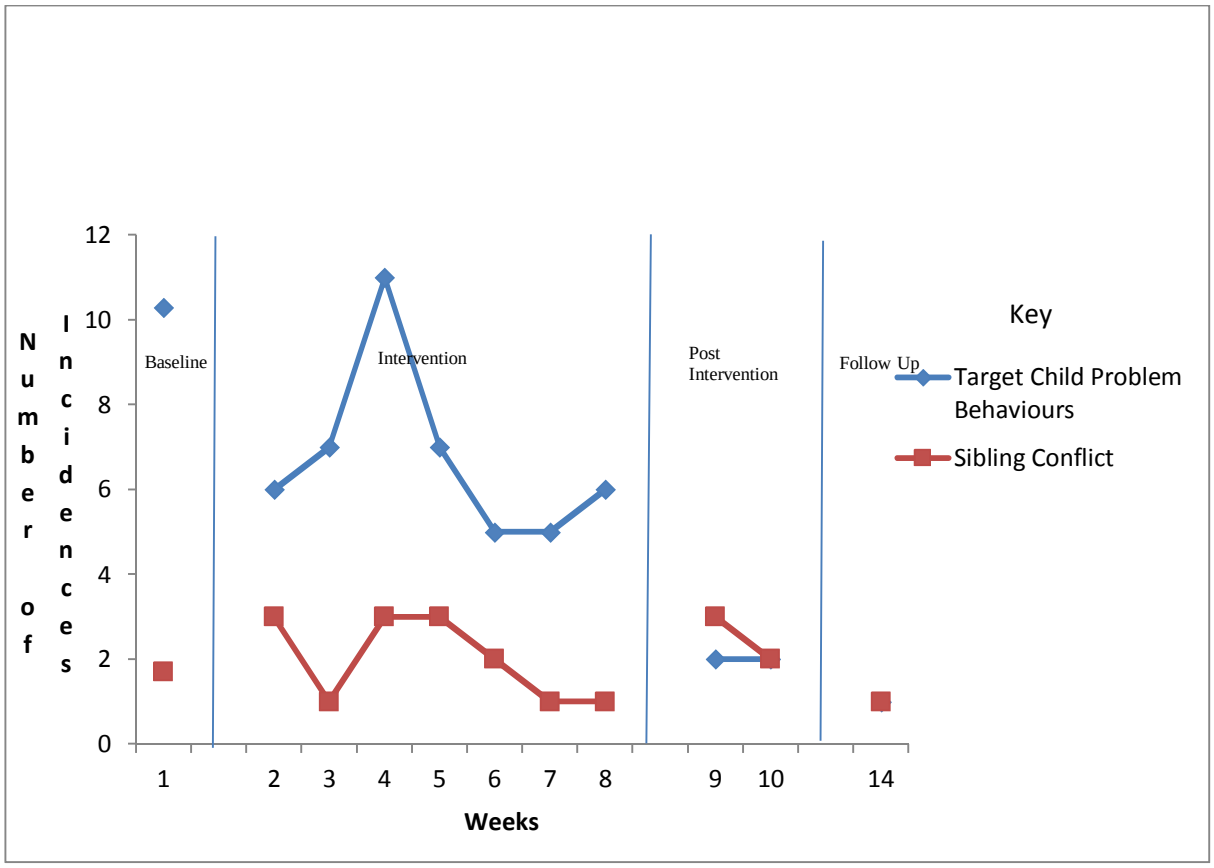

Figure 2. Family One: Total weekly frequencies of problem behaviours and sibling conflict from maternal daily diaries.

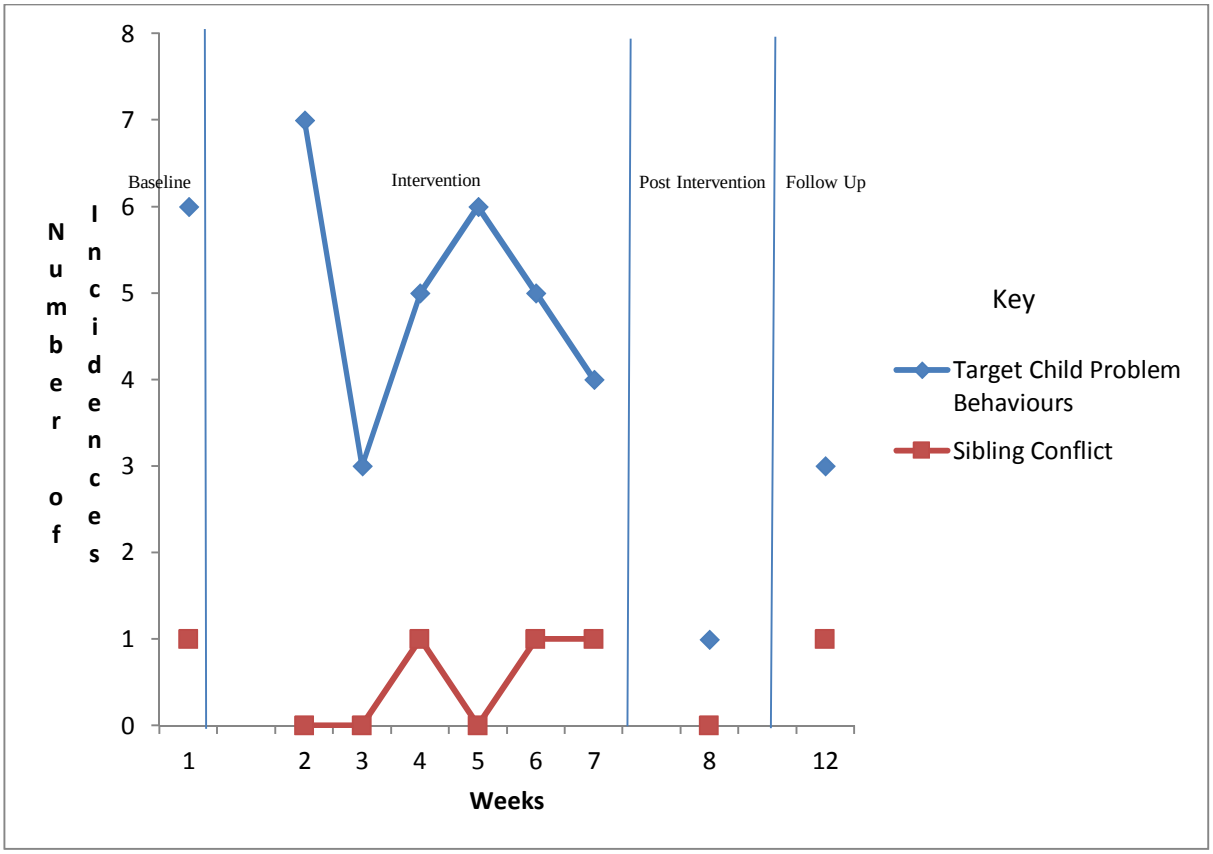

Figure 3. Family Two: Total weekly frequencies of problem behaviours and sibling conflict from maternal daily diaries.

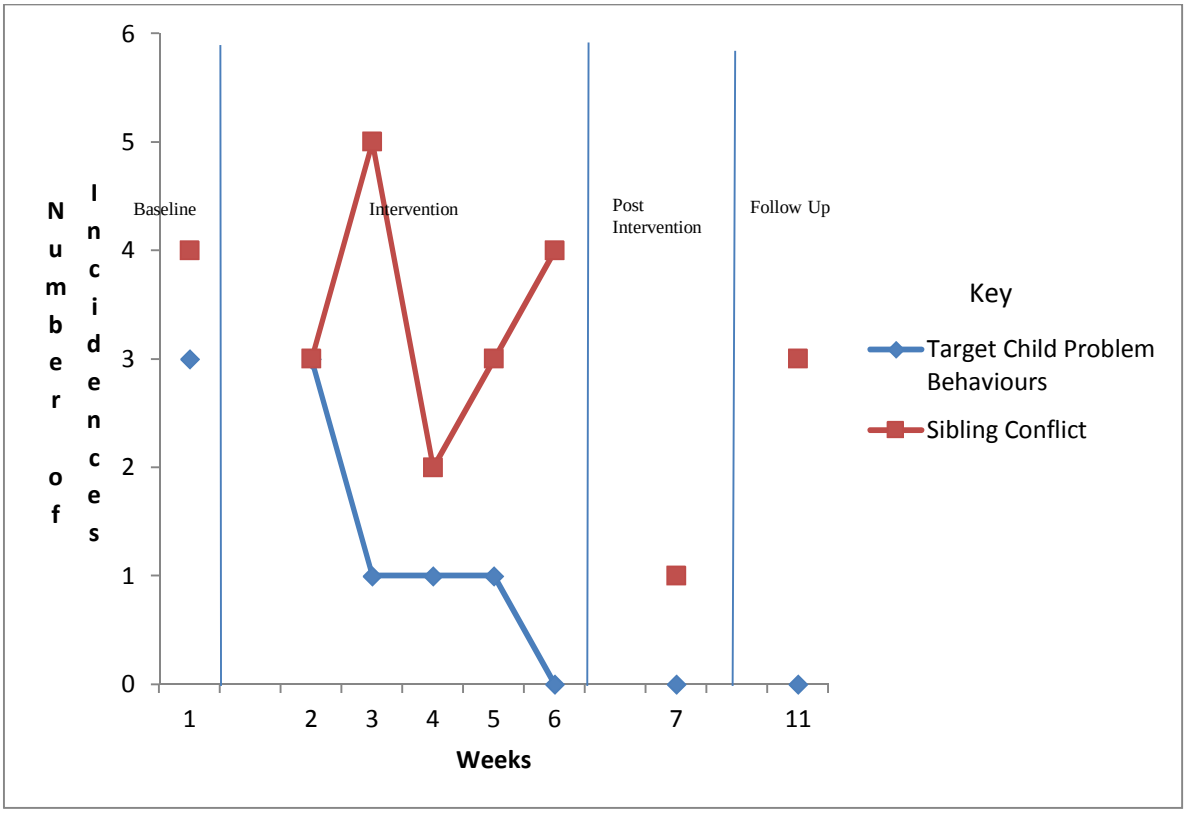

Figure 4. Family Three: Total weekly frequencies of problem behaviours and sibling conflict from maternal daily diaries.

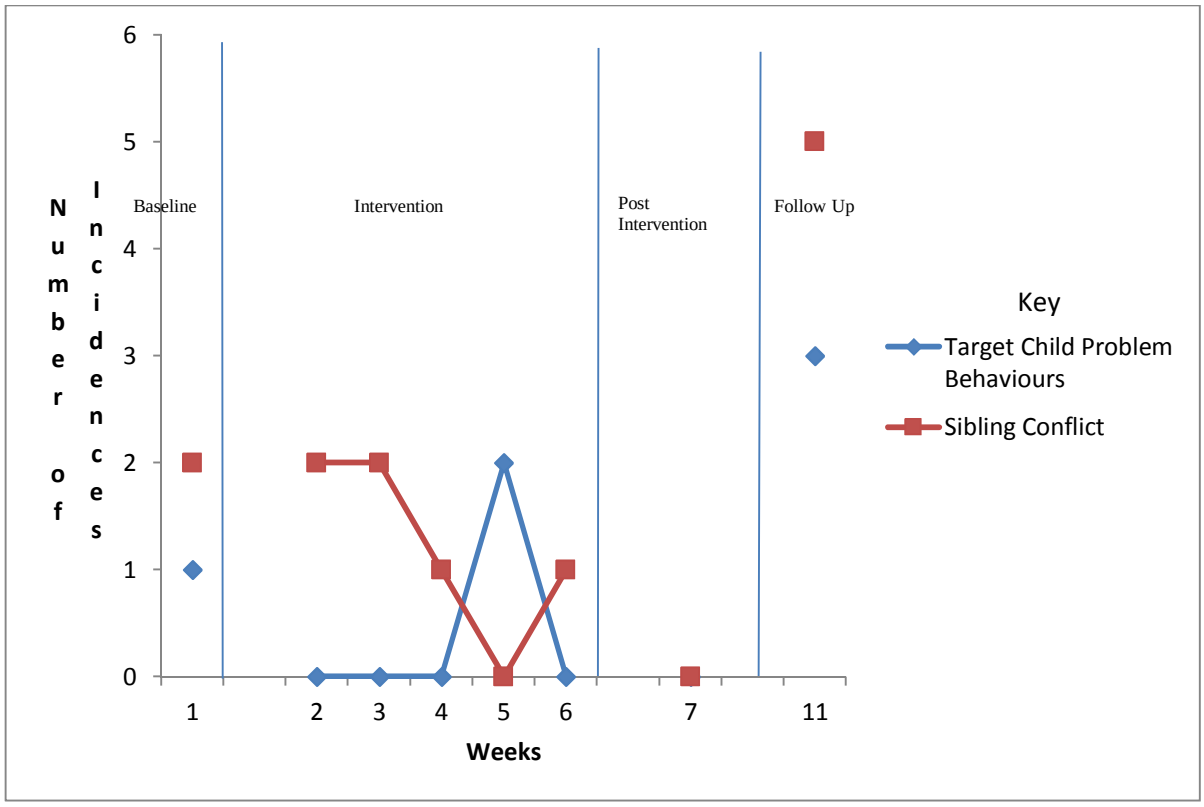

Figure 5. Family Four: Total weekly frequencies of problem behaviours and sibling conflict from maternal daily diaries.

Pre-post Outcome Measures

The Parent-Child Relationship Inventory (PCRI). The results for the PCRI are presented in Table 9 and discussed below for each family.

Family One: For this family the *Parental Support Scale*, *Satisfaction with Parenting Scale* and *Autonomy Scale* remained in the normal range for both the target child (t=45, 52, 59) and sibling (t=47, 52, 56) pre and post Triple P intervention. The *Involvement Scale* shifted from being in the borderline range (t=41, 39) prior to beginning Triple P to being in the normal range for both the target child (t=49) and sibling (t=42). Similarly, both the target child and sibling went from being in the clinical range (t=36, 34) for the *Communication*

Scale to being in the normal range (t=53, 43). Lastly, for the *Limit Setting Scale* the target child went from being in the borderline range (t=41) to the normal range (t=50) while the sibling remained in the normal range pre (t=47) and post (t=48) Triple P.

Family Two: Similar to Family One, the target child (t=49, 46, 70) and sibling (t=56, 57, 63) remained in the normal range before and after Triple P for the *Parenting Support Scale, Satisfaction with Parenting Scale* and *Autonomy Scale*. For the *Communication Scale* both the target child (t=25) and sibling (t=36) remained in the clinical range. For the *Involvement Scale*, the target child remained in the clinical range before (t=33) and after (t=29) the Triple P while the sibling shifted from the borderline (t=41) to the normal range (t=49). Lastly, for the *Limit Setting Scale* the target child shifted from the clinical range (t=38) to the normal range (t=54) while the sibling remained the same in the normal range (t=78).

Family Three: For the *Parental Support* and *Autonomy Scales* both children remained in the normal range from before (t=49, 51, 45, 45) Triple P to after (t=49, 53, 49, 48). For the *Involvement Scale* both the target child (t=20) and sibling (t=30) remained in the clinical range. For the *Satisfaction with Parenting* and *Communication Scales* the target child stayed in the clinical range for both (t=32, 28) compared with the sibling who remained in the normal range for both (t=42, 43). Lastly, for the *Limit Setting Scale,* the target child was in the borderline range (t=40) and the sibling was in the clinical range (t=39) prior to beginning Triple P. After completion of Triple P, scores for both the target child (t=46) and sibling (t=45) shifted into the normal range.

Table 9

Mother Report Parent-Child Relationship Inventory Pre and Post Comparison

Family Number	Intervention Phase	Parental Support		Satisfaction With Parenting		Involvement		Communication		Limit Setting		Autonomy	
		Target Child	Sibling	Target Child	Sibling	Target Child	Sibling	Target Child	Sibling	Target Child	Sibling	Target Child	Sibling
1	Pre	*t=45* (high)	*t=45* (high)	*t=45* (high)	*t=42* (high)	*t=41* (b/l)	*t=39* (b/l)	*t=36* (low)	*t=34* (low)	*t=41* (b/l)	*t=47* (high)	*t=49* (high)	*t=52* (high)
	Post	*t=45* (high)	*t=47* (high)	*t=52* (high)	*t=52* (high)	*t=49* (high)	*t=42* (high)	*t=53* (high)	*t=43* (high)	*t=50* (high)	*t=48* (high)	*t=59* (high)	*t=56* (high)
2	Pre	*t=53* (high)	*t=72* (high)	*t=42* (high)	*t=57* (high)	*t=33* (low)	*t=41* (b/l)	*t=39* (low)	*t=39* (low)	*t=38* (low)	*t=75* (high)	*t=67* (high)	*t=62* (high)
	Post	*t=49* (high)	*t=56* (high)	*t=46* (high)	*t=57* (high)	*t=29* (low)	*t=49* (high)	*t=25* (low)	*t=36* (low)	*t=54* (high)	*t=78* (high)	*t=70* (high)	*t=63* (high)
3	Pre	*t=49* (high)	*t=51* (high)	*t=29* (low)	*t=42* (high)	*t=20* (low)	*t=30* (low)	*t=27* (low)	*t=42* (high)	*t=40* (b/l)	*t=39* (low)	*t=45* (high)	*t=45* (high)
	Post	*t=49* (high)	*t=53* (high)	*t=32* (low)	*t=42* (high)	*t=20* (low)	*t=30* (low)	*t=28* (low)	*t=43* (high)	*t=46* (high)	*t=45* (high)	*t=49* (high)	*t=48* (high)
4	Pre	*t=42* (high)	*t=49* (high)	*t=46* (high)	*t=52* (high)	*t=33* (low)	*t=55* (high)	*t=43* (high)	*t=55* (high)	*t=33* (low)	*t=54* (high)	*t=47* (high)	*t=45* (high)
	Post	*t=53* (high)	*t=56* (high)	*t=52* (high)	*t=54* (high)	*t=44* (high)	*t=57* (high)	*t=39* (low)	*t=53* (high)	*t=40* (b/l)	*t=64* (high)	*t=43* (high)	*t=43* (high)

Note: b/l refers to the borderline range

Family Four: For this family the *Parental Support Scale*, *Satisfaction with Parenting Scale* and *Autonomy Scale* remained in the normal range for both the target child (t=53, 52, 43) and sibling (t=56, 54, 43) before and after Triple P. For the *Involvement Scale*, the target child shifted from the clinical range (t=33) to the normal range (t=44) while the sibling remained in the normal ranges from pre (t=55) to post (t=57) Triple P. For the *Communication Scale* the target child moved from the normal range (t=43) to the clinical range (t=39) while the sibling remained the same in the normal range (t=53). Lastly, for the *Limit Setting Scale*, the target child shifted from the clinical range (t=33) to the borderline range (t=40) while the sibling stayed in the normal range (t=64).

All four families remained in the normal range for the *Parental Support Scale* and *Autonomy Scale* from pre to post measurement. Similarly, three of the four families remained in the normal range for the *Satisfaction with Parenting Scale*. The *Involvement, Communication* and *Limit Setting Scales* either improved from pre measurement to post measurement or remained the same.

The Parenting Scale (Revised). The results for the Parenting Scale (Revised) are presented in Table 10 and discussed below for each family.

Family One: The results for each of the three subscales increased post intervention. The *Laxness, Over Reactivity, Hostility* Scales and the *Total Score* all changed from being in the clinical range (4.80, 4.40, 2.67 and 4.03 respectively) pre intervention to the non-clinical range after completing Triple P Programme (3.20, 2.40, 1.00 and 2.30 respectively).

Family Two: The scores on this scale for this family remained the same from pre to post intervention. The *Laxness* and *Over Reactivity Scales* remained unchanged in the non-clinical range (2.20, 2.60), the *Hostility Scale* stayed in the borderline range (2.33) and the *Total Score* remained the same in the non-clinical range (2.90).

Family Three: This family had one change which was for the *Over Reactivity Scale*. Prior to completing the Triple P Programme this was in the clinical range (4.80) however, after completion of the Triple P Programme this changed to be in the non-clinical range (2.80). This change resulted in the *Total Score* also changing from clinical (3.47) to non-clinical range (2.60). The *Laxness* and *Hostility Scales* remained unchanged from pre to post intervention staying in the non-clinical range (2.20, 2.00).

Family Four: The *Over Reactivity* and *Hostility Scales* for this family were in the non-clinical range (3.80, 1.33) pre intervention and remained stable until post intervention (1.80, 1.33). The *Laxness Scale* moved from being in the clinical range (3.60) pre intervention to being in the non-clinical range (2.60) post intervention. This resulted in the *Total Score* moving from being in the clinical range (3.53) pre intervention to the non-clinical range (2.76) post intervention.

The overall results for the group of families were relatively different but on the whole, they improved. All of the families *Total Scores* were in the non-clinical range at post intervention.

Table 10

The Parenting Scale (Revised) Mother Report

Family Number	Intervention Phase	Sub-Scales and Scores			
		Laxness	Over Reactivity	Hostility	Total Score
1	Pre	4.80	4.40	2.67	4.03
	Post	3.20	2.40	1.00	2.30
2	Pre	2.20	2.60	2.33	2.87
	Post	2.20	2.60	2.33	2.90
3	Pre	2.40	4.80	1.00	3.47
	Post	2.20	2.80	2.00	2.60
4	Pre	3.60	3.80	1.33	3.53
	Post	2.60	1.80	1.33	2.76

Parent-Target Child-Sibling Direct Observations

General and descriptive praise. For Families One and Three the amount of general praise given to both the target child and the sibling increased from baseline (six and 11 occurrences for Family One and zero for Family Three) to post intervention (10 and 13 occurrences for Family One and 11 and three occurrences for Family Three). For Family Two and Family Four, number of general praise decreased from seven and nine for Family Two and three and two for Family Four to five and four for Family Two and zero for Family Four at post intervention respectively. The amount of descriptive praise given to both the target child and sibling from the parent for Family One and Three increased (from zero for both families at baseline, to three and two at post intervention for Family One and seven and four

at post intervention for Family Three). For Family Two the amount given to the target child increased from zero to four but decreased for the sibling from one to zero. For Family Four the amount of descriptive praise received from the parent remained at zero for both the target child and sibling (see Table 11 for a full summary of the direct observation results).

Compliance and non-compliance of the target child and sibling. For Family One and Three the number of instances of compliance from the target children increased from 43-83% (Family One) and 89-100% (Family Three) and from the siblings increased from 64-69% (Family One) and 67-100% (Family Three). The rate of non-compliance decreased from the target children from 57-17% (Family One) and 11-0% (Family Three) and from the siblings from 36-31% (Family One) and 33-0% (Family Three). In comparison, the rate of compliance for Family Two and Four both decreased for the target child (from 80-50% for Family Two and 56-40% for Family Four) and sibling (from 67-0% for Family Two and 92-25% for Family Four) while the rate of non-compliance increased for the target children (from 20-50% for Family Two and 44-60% for Family Four) and siblings (from 33-100% for Family Two and 8-75% for Family Four).

Children's positive and negative responses to their mother's initial interaction. The target child and sibling from Family One both increased their positive responses from baseline to post intervention to their mother from 49 to 73 for the target child, and 50 to 56 for the sibling. The target child decreased their negative responses (from 38 to 16) while the sibling had a very slight increase (from 11 to 12) in positively responding to their mother. However, the target child and sibling from Family Two decreased their positive responses to their mother from 34 to 31 from the target child and 35 to 28 from the sibling. The target child also decreased in his negative responses (from 14 to three). In contrast, his sibling increased their negative response (from six to eight) to their mother. Family Three decreased both the target childôs positive (from 94 to 73) and negative (from 13 to four) responses while

the sibling increased their positive responses (from 33 to 47) and decreased their negative responses (from six to two). Lastly, for Family Four, they experienced a decrease in both positive (from 27 to nine from the target child and from 13 to four from the sibling) and negative responses (from 23 to two from the target child and from 13 to four from the sibling) for the target child and sibling.

The parent's positive and negative reactions to their child's responses. Family One increased their positive reactions to both the target child (from 69 to 106) and siblingôs (from 58 to 64) responses from baseline to the post intervention session. The parentôs negative reactions toward the target child decreased (from 23 to 12) while those toward the sibling increased slightly (from four to five). For Families Two and Four, the parentôs positive reactions to the target childrenôs responses decreased (from 42 to 38 toward the target child from Family Two and from 40 to 21 toward the target child from Family Four) as did their positive reactions to the siblingôs responses (from 48 to 37 toward the sibling from Family Two and from 21 to five toward the sibling from Family Four). This was the same for their negative reactions to both the target children (from 21 to three toward the target child from Family Two and from 41 to 11 toward the target child from Family Four) and siblingôs (from 10 to sic toward the sibling from Family Two and from 33 to three toward the sibling from Family Four) responses. For Family Three, the parentôs positive reactions to the target childôs responses decreased (from 114 to 104) while the positive reactions to the siblingôs responses increased (from 44 to 82). The parentôs negative reactions toward the target child and siblingôs responses decreased (from two to zero toward the target child and from five to zero toward the sibling) from baseline recording to the post intervention session.

Table 11

Number of General and Descriptive Praise, Percentage of Compliance and Non-Compliance, and Number of Child Responses to Mother Interactions and Parent Reactions to the Child's Response over the Two 30 Minute Observation Periods.

Family Number	Intervention Phase	No. General Praise		No. Descriptive Praise		% Compliance		% Non Compliance		No. Child Responses to Mother Interaction				No. Parent Reactions to the Childôs Response			
										Positive		Negative		Positive		Negative	
		Target Child	Sibling	Target Child	Sibling	Target Child	Sibling	Target Child	Sibling	Target Child	Sibling	Target Child	Sibling	Target Child	sibling	Target Child	Sibling
1	Pre	6	11	0	0	43	64	57	36	49	50	38	11	69	58	23	4
	Post	10	13	3	2	83	69	17	31	73	56	16	12	106	64	12	5
2	Pre	7	9	0	1	80	67	20	33	34	35	14	6	42	48	21	10
	Post	5	4	4	0	50	0	50	100	31	28	3	8	38	37	3	6
3	Pre	0	0	0	0	89	67	11	33	94	33	13	6	114	44	2	5
	Post	11	3	7	4	100	100	0	0	73	47	4	2	104	82	0	0
4	Pre	3	2	0	0	56	92	44	8	27	13	23	13	40	21	41	33
	Post	0	0	0	0	40	25	60	75	9	4	2	4	21	5	11	3

Sibling Coding Results

Table 12 below shows the number of positive and negative physical and verbal interactions between the target child and their siblings for the four families.

Positive and negative physical interactions between siblings. Positive physical interactions from the target child toward the sibling for Family One remained stable with one physical interaction at baseline to the post intervention observation. The positive physical interactions from the sibling toward the target child increased from three to eight positive interactions. Negative physical interactions from the target child toward the sibling and vice versa both decreased over time from three to one and three to zero.

For Family Two, positive physical and negative physical interactions from the target child toward the sibling and vice versa decreased from baseline to post intervention. For example, the target childôs positive physical interactions decreased from two to zero and their negative physical interactions decreased from two to one.

The target childôs positive and negative physical interactions directed toward the sibling for Family Three both remained stable on one and zero occurrences while the siblingôs positive and negative interactions directed toward the target child both decreased over time from four to zero occurrences for positive physical interactions and one to zero occurrences for negative physical interactions.

Lastly, for Family Four, the target child and siblingôs positive physical interactions toward each other both decreased to zero as did the target childôs negative physical interactions directed toward the sibling. The siblingôs negative physical interactions directed toward the target child remained at two.

Positive and negative verbal interactions between siblings. For Family One, the positive verbal interactions from the target child directed toward their sibling and vice versa increased from one to five occurrences for the target child toward their sibling and one to three occurrences for the sibling toward the target child. The negative verbal interactions form the target child toward the sibling increased from zero to two occurrences and from the sibling toward the target child decreased from one to zero occurrences.

In comparison, the positive verbal interactions from the target child toward the sibling in Family Two both decreased from eight to three occurrences for the target child toward the sibling and four to two occurrences for the sibling toward the target child as did the target childôs negative verbal interactions toward the sibling which decreased from one occurrence to zero whereas the siblingôs negative verbal interactions toward the target child increased from one to three occurrences.

The positive verbal interactions from the target child toward the sibling in Family Three decreased from seven occurrences at baseline to one occurrence at post intervention. Likewise, the siblingôs positive verbal interactions also decreased from 11 to seven occurrences as post intervention. The target childôs negative verbal interactions toward the sibling increased from zero to one occurrence while the siblingôs negative verbal interactions toward the target child decreased from one to zero.

Lastly, for Family Four the positive verbal interactions and negative verbal interactions from the target child toward the sibling and vice versa all decreased over time with the positive verbal interactions from the target child toward the sibling decreasing from 14 to three occurrences while from the sibling to the target child decreased from seven to one occurrence. The negative verbal interactions from the target child toward the sibling

decreased from three to zero and from the sibling toward the target child from five to one occurrence.

Table 12

Number of Positive and Negative Physical and Verbal Interactions between the Target Child and Closest in Age Sibling Over the Two 30 Minute Observation Periods.

Family Number	Intervention Phase	Types of Interactions							
		Physical Interactions				Verbal Interactions			
		Positive		Negative		Positive		Negative	
		Target Child	Sibling	Target Child	Sibling	Target Child	Sibling	Target Child	Sibling
1	Pre	1	3	3	3	1	1	0	1
	Post	1	8	1	0	5	3	2	0
2	Pre	2	1	2	1	8	4	1	1
	Post	0	0	1	0	3	2	0	3
3	Pre	1	4	0	1	7	11	0	1
	Post	1	0	0	0	1	7	1	0
4	Pre	1	2	3	2	14	7	3	5
	Post	0	0	0	2	3	1	0	1

The results from the type of play being engaged in between the target child, sibling and parent and the percentage of time spent in each type of play is now presented. Family One, went from having a relatively even distribution of three different types of play at baseline to spending the majority of their time (65%) in cooperative play with the target child, sibling and parent in the second observation. At baseline and during the post intervention observation, for Family Two, the majority of the target child (77% and 94% respectively) and siblingôs (46% and 79% respectively) time was spent in parallel play as was the majority of the target child (84% and 65% respectively) and siblingôs (67% and 69% respectively) time for Family Four. Family Threeôs time spent in different play did not vary greatly from the first observation to the second. During both observations the majority of time was spent in cooperative play (51% and 77% respectively) otherwise most of their time was spent with the target child and parent in cooperative play and the sibling in parallel play.

Table 13

The Percentage and Type of Play Engaged in between the Target Child, Closest in Age Sibling and Mother over Two 25 Minute Observations of Pltay

FN	IP	Percentage and Type of Play							
		Cooperative Play				Parallel Play		Solitary Play	
		Target Child/ Parent	Sibling/ Parent	Target Child/ Sibling	Target Child/ Sibling/ Parent	Target Child	Sibling	Target Child	Sibling
1	Pre	35	18	0	8	44	55	0	0
	Post	5	0	0	65	20	25	0	0
2	Pre	0	31	0	20	77	46	0	0
	Post	1	14	1	0	94	79	0	0
3	Pre	33	4	0	51	4	33	6	6
	Post	19	1	0	77	1	19	0	0
4	Pre	4	17	1	8	84	67	0	0
	Post	5	0	2	24	65	69	0	0

Note. FN refers to the family number, IP refers to the intervention phase

Qualitative Measures

Child interviews. Due to the possibility of the participants being identified, the results in this section will be discussed as a whole group.

Specific questions were asked of the target child and siblings to elicit various responses. Common types of responses to these questions are pooled below:

- Sibling(s) was annoying/did not like to play with them
- Sibling(s) did not like me/did not like playing with me
- Various consequences for breaking rules
- Did not like fighting with target child/sibling(s)
- Who gets to be the ôbossô when playing games

Sibling(s) was/were annoying/did not like playing with them. For all seven children they reported they disliked playing with their sibling(s) and often stated how annoying their siblings were or that they preferred to play with their parents.

Post intervention, this aspect was only reported by two of the four children.

Sibling(s) did not like me/did not like playing with me. At baseline, only one of the seven children reported he felt his sibling did not like him, found him annoying and did not want to play with him, but at the post intervention interview this aspect was not revisited by any of the children.

Various consequences for breaking rules. Pre intervention, the seven children talked about that breaking the rules made Mum and Dad unhappy. The children also reported they received a variety of consequences including positive punishment when they broke the family rules and one child reported they sometimes ran away. Post intervention, the consequences that were discussed from all the children included Triple P consequences such as being told

to stop and being sent to time out or quiet time. One child and sibling mentioned positive punishment.

Did not like fighting with the target child/sibling(s). Pre intervention, this aspect as discussed by one of the target children and three siblings. There were discussions around the preference for not fighting with their siblings and that they enjoyed playing with them when fighting did not occur. Post intervention, this aspect was discussed by only one target child and re-emerged as a point of discussion for two siblings. Again it was discussed that they do not like fighting and enjoyed playing with their sibling(s) when fighting did not occur.

Who gets to be the 'boss' when playing games. One of the target children and two siblings said that their Dad was the one who was usually the boss. Two of the target children and one sibling said they took turns at being the boss. One of the target children said he was always the boss. Post intervention, this content was revisited by all children. Two of the target children and one sibling talked about taking turns being the boss and two of the target children referred to themselves as always being the boss when playing games. Two siblings talked about their Dad being the boss.

Content that was elicited from the final interview with the mother. The mothers responded with various comments regarding their feelings. Their comments can be separated into the following categories:

- Life is now less stressful
- Best thing about Triple P
- Most challenging thing about Triple P
- Impact on the sibling relationship
- Impact on the target child
- Parental differential treatment

- Success of Triple P

Life is now less stressful. This theme was discussed by Family One, Two and Three. Comments such as that ñlife is less stressful because now the family is more cohesive and calmò, ñthere is less frustration and escalationò were said. There were feelings expressed of more support from their partner and from the Triple P practitioner.

The best thing about Triple P. Family One and Two enjoyed the structure the programme gave for how to respond to challenging/problematic behaviours as well as positive behaviours. Family Two found the monitoring of behaviours really helpful. Family Three found the practice sessions to be invaluable while Family Four found the incidental teaching and quiet time the best aspects of the programme.

Most challenging thing about Triple P. Family One found finding time to document everything difficult along with trying to remember all of the different strategies. Family Two found using quiet time a challenge while Family Three found the planned outings difficult along with trying to remember all of the different strategies. Family Four found the most challenging aspect that Triple P did not appear to have an effect on the target child, only the siblings.

Impact on the sibling relationship. Family One felt that the sibling relationship had become more caring, that they played nicer and there was more affection. Furthermore, the siblings got more immersed in each otherôs play and respected each otherôs space more which had resulted in less fighting. Family Two felt that the target child now treated the sibling as more of an equal and was now more inclusive. Family Three felt that the target child and the sibling get along better now with more negotiating and less fighting and that they play more nicely together. Family Four did not see many changes apart from a little bit of a more caring relationship.

Impact on the target child. Family One felt that the target child responded well to Triple P, that he was able to regulate his emotions better, he was more cooperative and compliant, enjoyed life more and was more positive in general. Family Two felt that the target child felt better about himself, showed more responsibility and was much more compliant. He was more aware of the effect of his behaviour on others, more accepting of rules and limits and was more kind to family members. The mother from Family Three perceived her target child to be less hurtful, that he negotiated more, realised there were consequences and could regulate his emotions better. Family Four felt that the programme did not have an effect on the target child and if anything he got worse.

Parental Differential Treatment. This content was only discussed by Family Three and was quite a clear point of discussion for them throughout their final interview. This mother discussed realising she treated the target child differently from the other children and that she was more lenient with the other children. She made the realisation that her perceptions were different from reality at times with how she treated each child.

Success of the programme. Three of the four families felt the programme had been really successful and had resulted in positive changes in their family as a whole as well as increased the quality of the sibling relationship. Family Four felt that the programme had no effect on the target child however, but did see some positive results with using the strategies with the other children.

Chapter Four

Discussion

The aim of the current study was to investigate whether the participation of four parents in a five to seven week Triple P Positive Parenting Programme was effective and had an effect on the quality of the parent-child-sibling relationships in their family. In order to ascertain this, firstly the effectiveness of the Triple P Programme in changing the target behaviours and other family measures needs to be established. If it is not effective then we would not expect effects on the siblings and their relationships to be present. This has been considered for each measure separately. Then considered will be, what effects the Triple P Programme had on the interactions between the target child and their closest in age sibling, and the parent and the target child and sibling. Whether negative interactions between the target child and their sibling decreased and positive interactions increased and, whether negative interactions between the parent and the target child and sibling decreased and positive interactions increased. The discussion section therefore, is presented in the following order. Firstly the effectiveness of the Triple P Programme on the target parent and child behaviours, the PCRI, the Parenting Scale (Revised) and the play behaviour is presented followed by discussion on parental impressions of the intervention and the effectiveness of the programme on the four targeted children and their siblings. Additional findings regarding parental differential treatment and generalisation of the positive effects from the Triple P Programme to the untreated sibling, the limitations and the implications for practice, suggestions for future research and conclusions complete this chapter.

The Overall Effectiveness of the Triple P Programme for the Parent(s), Target Child and Sibling

Parents' use of praise. The effectiveness of the Triple P Programme is evident in Families One and Three who demonstrated increased ability in their use of general and descriptive praise with both the target child and sibling. Interestingly, Family Two recorded a decrease in general praise with the two children but only an increase in descriptive praise for the target child. The result for Family Two is surprising however, the context of the observation must be taken into account. The post intervention observation was completed at a busy time when the target child and sibling did not appear to want to give their full attention to the presented activity and would have rather been outside playing with friends. Due to this factor and the busy household with other siblings and only one parent being at home at the time, this was only one snapshot in time and was not representative of their play sessions and parental interaction. Family Fourôs results for the number of times both general and descriptive praise was used with each child sat at zero at post intervention. This may have been because this family reported less time to engage in the programme owing to numerous other demands and because their target childôs behaviour problems were more severe than the other childrenôs.

Compliance. A focus was placed on teaching the four parents effective compliance skills during the Triple P training sessions. As a result of the effectiveness of the training, the mothers in Families One and Three gave clear instructions. For example, ensuring the instruction was clear and specific and not stated as a question as well as having back-up consequences in mind should the child not comply and rewards such as praise and attention for good behaviour. This resulted in higher rates of compliance and lower rates of non-compliance with the children from these families. The finding of higher rates of compliance is consistent with Eyberg and Robinson (1982) who found less demanding and deviant

behaviours and higher rates of compliance in their target children and untreated siblings when they trained seven families in PCIT. In contrast, Family Two experienced a decrease in their rates of compliance and an increase non-compliance for their target child and sibling. These results may be due to the busy home environment at the time of the observation as reported earlier. In this environment the parent was unable to give their full focus to the target child and closest in age sibling and this may have had an effect on the lower rate of compliance and higher non-compliance for this family. Family Four did not respond as well as the other families.

The PCRI Scale. There were changes for all four families on some scales but the scales they changed on varied. There were positive changes for Families One, Two and Four on the *Involvement* Scale, for Family One on the *Communication* Scale, and for all four families on the *Limit Setting* Scale. The only negative change was for Family Four in the *Communication* Scale. Increased involvement may increase for Family Three over time as the difficult to manage behaviours decrease and the parents positive involvement increases (Gerard, 2000). This result on the *Communication* Scale suggest that all of the parents with the exception of Family One perceived they did not effectively communicate with their children and that there was room for improvement. Effective communication could potentially be something that improves over time with improved behaviour in the target child. The result for the *Limit Setting* Scale indicates that these families were having much more positive experiences in guiding their childôs behaviour. This is not a surprising result, as teaching effective limit setting skills is one of the main focuses of the Triple P Programme and demonstrates the success of the programme for these families (Gerard, 2000). It is however, a surprising result for Family Four as the Triple P Programme was unsuccessful according to parent reports. This result may however just reflect that parentôs perception at that point in time.

The main changes in the parent, target child and sibling relationships were with Family One and this was evident in the *Involvement, Communication* and *Limit Setting* Scales. This finding may have been due to the Triple P Programme directly addressing these aspects in the parenting training package by providing this parent with more confidence and skills in being more involved with the target child and sibling, communicating more effectively with both children and being able to set limits successfully.

Similarly, Family Two moved from the borderline range to the normal range for the sibling in the *Involvement* Scale, however remained in the clinical range for the target child. This finding indicates an attempt to become more involved with the sibling. This change could also be due to the sibling engaging in less problem behaviours than the target child but the parent gained more confidence in setting limits on the target childôs behaviour. For example, in the final interview the mother reported ñweôre now using strategies effectively and (the target child) is now more accepting of rules and limits.ò However, the *Communication* Scale remained in the clinical range for both the target child and sibling which suggests that additional work is still required on increasing effective communication between the parent and both children.

Following the trend of Family One and Two, Family Threeôs most notable change was in the *Limit Setting* Scale where there was a change from the borderline range to the normal range for the target child and from the clinical range to the normal range for the sibling. This finding illustrates the parent was more confident and successful in setting appropriate limits for both the target child and sibling. The other five scales did not change from pre to post intervention, indicating that Family Threeôs focus may have been on making positive changes in their limit setting abilities. This suggests that for this family, more focus may need to be applied to communicating more effectively and being more involved with the target child and sibling.

The Parenting Scale (Revised). The overall results from the Parenting Scale (Revised) indicate the four families either improved or remained the same on this measure. This finding suggests that these parents responded less punitively and in a more positive, calmer, consistent and more predictable manner to their childrenôs misbehaviour. This is an encouraging result for those families that improved and indicates the success of the Triple P Programme for teaching positive parenting strategies.

Play/Activity Behaviour. The observation sessions provided rich information on the type of play being engaged in prior to the Triple P Programme and whether this changed after completion of the programme. Through the direct observations at pre and post intervention, changes were observed in the play interactions between the target child, sibling and parent. For Family One and Three there was a clear shift from the parent and children being involved in parallel play to more cooperative and involved play. For example, for Family One, at the post intervention observation the target child, sibling and parent were involved in playing an imaginary game together pretending they were at a hospital. The sibling says to the target child and parent, ñhelp me, Iôm at the hospital.ò This is a stark contrast to the pre intervention observation where the majority of the play was by themselves in parallel play. Similarly, Family Three spent the majority of their time post intervention in cooperative play together (target child, sibling and parent). Conversely, for Family Two, the parent and two children continued to spend most of their time in parallel play. These results suggest that the Triple P Programme was successful in developing and extending play opportunities and skills with these young children from Family One and Three. As the parents became more involved in their childrenôs play they as a family, played much more cooperatively together with skills such as sharing, turn taking and requesting items regularly occurring.

These findings suggest more positive interactions occurred during these play sessions. This is very important as this breaks the coercive cycle that Patterson (1984, 1986) discusses.

These coercive cycles that may have been occurring prior to the Triple P Programme may have been a tool through which sibling interactions were adding to the externalising behaviour problems of the target child. In addition, parents may have been unintentionally reinforcing the oppositional or hostile behaviour as a result of their inconsistent and/or authoritarian parenting and discipline practices. The externalising behaviour in the target child may have been intensified by their increasingly aversive reactions (Patterson, 1984; Patterson, 1986). This negative cycle has now changed to a positive one through the decrease in negative interactions and increase in cooperative play together for Family One and Three. Another example of some positive interactions that occurred during post intervention play activities were ôhigh fivesô between the target child and sibling and sharing and helping each other at times such as packing up.

For Family Two and Four, the play activity was not as successful as the other two families as there were numerous distractions and the parent appeared to have difficulties in limit setting and being involved in the childrenôs play. The implication of this finding is that individual needs of the families need to be considered in time allocation during the training period. The result for Family Four is not surprising as the Triple P Programme was not effective for them.

Effectiveness of the Triple P Programme and Parental Impressions. Families One, Two and Three all reported positive experiences with the Triple P Programme in their final interview. They were able to report specific benefits ranging from being more prepared to manage their childrenôs positive and negative behaviours to feeling calmer. They also stated they felt a considerable improvement in their own and their childrenôs ability to regulate emotions and increase their use of general and/or descriptive praise to the target child and sibling. This finding is understandable as Sanders (1999, 2008) and Sanders et al. (2002) discuss the development of self-regulation skills and skills such as descriptive praise as being

a primary goal of the Triple P Programme. Consistent with this is a meta-analysis conducted by Graaf et al. (2008). In the research they considered, they reported positive effects for parents in areas of parental competence such as self-regulation.

The Triple P Programme was not effective for Family Four as reported by the mother in the final parent interview. This was due to a variety of factors which indicated a higher level of intervention was needed for this family. For example, the target childôs behaviours were on a more demanding level than was appropriate for Level Four Triple P and in addition, this was an extremely busy household. There were four children under seven years old including a new baby. Due to sicknesses in the family some aspects of the programme had to put on hold. The implication of these three factors meant that Family Four did not fully engage in the Triple P Programme.

The Effect of the Triple P Programme on the Sibling and Target Child

Sibling Conflict. Extreme conflict and aggression within the sibling relationship can impact negatively on childrenôs adjustment and if this is prolonged it may play a part in the development of conduct problems (Garcia et al., 2000; Olweus, 1979). The results of this section indicate that the level of sibling conflict decreased or remained the same as per baseline recordings for Families One, Two and Three at post intervention. These results were not surprising as these parents consistently implemented the strategies taught through the Triple P Programme on limit setting and responding appropriately to misbehaviour and sibling conflict. While the reductions in sibling conflict for Family One and Three were not large and Family Two returned to their baseline rate, these results combined with reports from the mothers in the final interview indicate a lower and more manageable level of sibling conflict compared to before them participating in the Triple P Programme. This result is in line with earlier research on the effects of parenting programmes on sibling relationships. For

example, Kennedy and Kramer (2008) found that their parenting programme resulted in the siblings engaging in more warm and involved interactions with each other. Family Four did not respond as well as other families.

A point of interest during this study was the question of whether treatment effects from a target child and parent participating in a parent training programme can be generalised to the untreated sibling(s). From reports from two of the four parents participating in this study, it appears that siblingôs behaviour did improve as well as the target childôs behaviour. This was observed through the decline in sibling conflict and the low number of negative interactions for Family One and Three. It was difficult, however, to tell whether this was a result of the target child and parents behaviour changing or whether the parent(s) generalised the Triple P strategies to other siblings and hence the effects on the siblings. In research conducted by Arnold et al. (1975), their results clearly stated that the effects of a parent training programme generalised to the siblings as well showing lowering rates of deviant behaviour however, they found the same uncertainty around whether because the skills were applied in the home whether they were essentially treating both the target child and siblings. It would appear then, that it is likely that the sets of skills that parents are learning are being applied to the siblings as well as the referred child (Arnold et al., 1975).

Interactions between the Target Child and Sibling

Physical Interactions. Physical interactions involved such behaviours as sharing, showing affection, helping each other, snatching, hitting and pushing. Negative physical interactions decreased during the study for all four families (with the exception of the target child to the sibling in Family Three where they remained on zero and the sibling to the target child in Family Four where they remained on two). This is a notable result as it is indicative of the parentôs effective limit setting skills. An example of this with Family One was seen

during their post intervention observation. The target child snatched a toy from his sibling and the mother reminded him that snatching is not okay and that they take turns nicely or it will be taken away for a short time. This resulted in a peaceful solution where the siblings shared the toy for a set amount of time each. This is a similar finding to Tiedemann and Johnston (1992) who found an increase in sharing between siblings and an overall improvement in the quality of the sibling relationship in their study.

Verbal interactions. Verbal interactions involved such behaviours as asking questions, describing the game, talking nicely to each other, whining and name calling. The target child and sibling in Family One increased their positive verbal interactions from pre to post intervention but there were limited opportunities for this reciprocal interaction as the sibling was only 2 years of age and most of the verbalisation were to and from the parent. For example, the parent said such things as ñcome over here and join in the gameò and ñwhat do you think we could buildò. There was, however, an increase in negative verbal interactions from the target child to the sibling but this increase was small and could be that at the post intervention observation both children and the parent were involved in cooperative play nearly the whole time compared to pre intervention when there was a much higher rate of parallel play (refer to Table 11). During cooperative play there were more opportunities for verbalisations in general toward each other compared to when playing individually and this may explain the slight increase in negative verbal interactions from the target child to the sibling. In addition, with the shift to cooperative play, the target child and sibling had more opportunities to interfere with each other and the target child may have been annoyed with his sibling at times, resulting in the slight increase in negative verbal interactions. In contrast, the other three families experienced a decrease in positive verbal interactions from the target child to the sibling and vice versa. One explanation for these findings could be the type of play these three families engaged in which left little room for positive interactions. The

parent and the two children from Family Two spent a large amount of their time in parallel play which meant there was little opportunity for interactions in general and this may explain the low number of overall verbal interactions. In contrast, the parent and the two children from Family Three spent the majority of their time in cooperative play which makes their result difficult to interpret as one would expect this type of play would present more opportunity for verbal interactions.

These varied results are indicative of the issues that can arise with observations in that they serve as a snapshot in time and interactions are dependent on the context, what has occurred that day and the engagement of the participants at the time of the observation (Gardner, 2000).

Target Child and Sibling Responses to Parental Interaction

Following the Triple P Programme one would expect there so be some changes in interactions between the target child and sibling toward the parent and vice versa. Results for each family were varied. The number of positive child responses to parental interactions increased from pre to post intervention for three of the eight children and decreased for the other five children. Negative child responses to parental interactions decreased for six of the eight children and increased for the other two children however, this was a minor increase.

It must be taken into account that although the number of positive responses decreased from pre to post observation for the children in Family Two and from the target child in Family Three, the number of responses on the whole may have been lower. For example, for Family Two, the number of both positive and negative responses from both child combined was at 89 at the pre intervention measurement and sat on 70 at post measurement. The decrease in positive responses may have been influenced by the increase in parallel play for Family Two at the post intervention observation. This would have

provided less opportunities for interactions in general and this is reflected in their results which show a decrease in positive and negative interactions between the target child, sibling and parent as a whole. Conversely, Family Three had an increase in cooperative play with the target child, sibling and parent which would have provided increased opportunities for positive and negative interactions however this was only the case for the sibling whose positive responses increased.

Negative responses from the target children and siblings to motherôs interactions on the whole decreased with the exception of a very low increase of one point for the sibling from Family One and two points for the sibling from Family Two. These are very minor increases. On the whole it appears the Triple P Programme resulted in a decrease in negative child responses to mother interactions (with the exception of the two very minor increases) and a more varied result for positive responses. These negative responses may have decreased for a similar reason as mentioned earlier in that the parentôs enhanced limit setting skills resulted in more appropriate behaviour in the children.

Family Oneôs results are indicative of a more cohesive and calm family who are able to negotiate and respond appropriately to interactions and requests from their parent. While Family Twoôs positive responses both decreased, the rate was still high especially compared with the low rate of negative responses. Family Threeôs positive responses increased for the sibling and decreased for the target child while the negative responses both decreased. Again, although the positive responses decreased for the target child, the rate of positive responses to negative responses is much higher and this should be taken into account. Family Four again, did not respond as well as the other families and had a very low number of interactions overall. None of the literature reviewed looked in detail at interactions such as these and for this reason it is difficult to compare to previous research.

Parental Responses to Target Child/Sibling. The Triple P programme was mostly effective in increasing the parentôs positive responses and decreasing their negative responses to the target child and sibling. The negative responses from the parent in Family One were at a minimum in comparison to their high rate of positive reactions at post intervention. This result supports the parent self-report where she stated that she felt calmer and as a consequence of the Triple P Programme the home was a much more harmonious family environment. Family Two had slight decrease in the positive parent reactions towards the target child and sibling at post intervention, however, these rates were still high in comparison to the negative responses. Similarly, Family Three increased their positive reactions toward the sibling and had a very small decrease toward the target child but decreased their negative reactions to both the target child and sibling to zero recordings. The slight decrease in positive reactions toward the target child is not concerning when taking into account the high rate of positive reactions occurring at both pre and post intervention toward this child. Family Four did not respond as well as the other families and again, had a low number of interactions overall in comparison to the other families.

It appears, that as a result of attending the Triple P Programme, the three mothers from Family One, Two and Three are now attending to and have increased their positive interactions toward their children (with the exception of some minor decreases) and they have lowered their number of negative interactions they had with their children. This may be due to a number of reasons. It is likely that the parents and the children, during the play activities/co-operative play had less opportunity for negative parent interactions to occur. With an enjoyable play activity, both parent and children could interact and enjoy the play, thus everyone had the opportunity to increase their positive interactions (with the exception of Family Two who participated in parallel play for the majority of the time). The parents focus during these sessions was also on the children, and not household chores, so the parent

could focus and be responsive to the childrenôs needs. Through the Triple P programme, the parents were taught to identify minor misbehaviour and attend to this appropriately before it escalated into more severe problem behaviour. For example, when minor misbehaviour was noticed, the parent was taught to give clear instructions to the children saying what the behaviour is that the parent would like them to stop and what it is that the parent would like them to start doing. If appropriate at this time the parent could use a logical consequence by removing the item they are misbehaving with for a short set amount time and then return it to them to give them another opportunity to behave appropriately. This appeared to be useful for families. An example of this was that one family had been using a similar strategy but removing the item for a whole day or week and they found that this was ineffective because the item got forgotten about. They found it much more effective to remove the item for a short time and then give their child another opportunity to comply. This, matched with the use of praise and attending to good behaviour, may explain why some parents increased their positive interactions and decreased their negative interactions.

These results can be compared to Humphreys et al. (1978) where they found mothers, following a behaviour training programme increased their positive interactions with their children while decreasing their negative interactions which in turn increased their target childôs rates of compliance. In addition, like this studyôs findings, the parentôs in Humphreys et al. (1978) study also changed their behaviour toward the sibling without direct instruction and as a result, the siblingôs rate of compliance also increased. The results from the current study can be compared to Humphreys et al. (1978) in that providing consistent limits, attending to positive rather than negative behaviour and using rewards and back-up consequences increased the rate of compliance in the target child and sibling.

Further to this, the changes in interactions post intervention for the parent, target child and sibling are consistent with Bryant and Crockenbergôs (1980) findings, in that, the

motherôs responsiveness to her childôs needs is associated with irregular antisocial and frequent pro-social interactions. If the mother meets the conveyed needs of their child then she is more likely to encourage pro-social interactions between the siblings. This simple strategy appears more effective than other strategies alone such as modelling of pro-social behaviours (Bryant & Crockenberg, 1980). This finding is reflected in the current study because mothers were specifically taught strategies that enabled them to meet their childrenôs expressed needs which then resulted in more harmonious play activities and lower rates of sibling conflict for Families One and Three.

One parent identified that she viewed the target child more negatively than the sibling. This may be an example of parental differential treatment (Brody, 1998; Meunier et al., 2011; Meunier, Roskam, Stievenart, Van De Moortele, Browne & Wade, 2012). Findings such as this have been previously reported by Deater-Deckard et al. (2005) who found that mothers viewed their children differently, in that, the child who was considered to exhibit more behaviour problems was viewed with less positivity and more negativity and that the mother was aware of the different manner she interacted/treated this child. Through participating in the Triple P Programme this mother was able to recognise the different treatment and stated her desire to change this.

Limitations of the Study

There are a number of limitations to this small study. Firstly, all of the families were Caucasian and all target children and siblings, with the exception of one were male. It would have been favourable to have had more female children as target children but due to the selection criterion of selecting the first families that responded to the information letter, this was not an option. Secondly, it would have been valuable to have had fathers involved in the Triple P Programme as well as the mothers, however, due to families work commitments and

time constraints of the fathers this was not possible. Thirdly, because the study was small, the results cannot be generalised to other types of families, such as single parent families or families of different ethnicities or gender. Future research may consider a larger sample size in order to test the generalising effects of the Triple P Programme on siblings more thoroughly. Fourth, time constraints meant that it was not feasible to implement a post intervention booster session a few weeks after the follow up measurements. Ideally, this would have been beneficial to the families as it would have given them additional time to practice the strategies and cement their newly taught skills. Moreover, this additional time would have allowed a longer time period between the conclusion of the Triple P sessions to see whether the effects of the programme were maintained in the home setting. A multiple baseline design would also have been beneficial in order to gain a more rigorous baseline measure. Fifth, there were inconsistencies between what the parent reported in the interviews and what was observed in the home setting. Additional observations in the home, booster sessions and additional interviews may help address this issue. Lastly, parents competed the behaviour diary themselves so the reliability of their recordings must be considered as it may have been affected by parentôs memories and perceptions of behaviours. Furthermore, in a busy household it may have been difficult to pick up on every behaviour and some may have been missed. This was reinforced by parentôs comments. Monitoring measures such as this however, serve as an efficient and useful way to collect data on the occurrence of target behaviours as well as its antecedents and consequences (Shapiro, 1984).

Implications for Practice

It has been well established in the research that negative sibling relationships are associated with maladjustment later in life. These children can experience such difficulties as anxiety, depression and antisocial behaviour (Branje et al., 2004; Kim, Hetherington & Reiss, 1999; Stocker et al., 2002; Waldinger, Vaillant & Orav, 2007). Evidence based strategies that

can ameliorate extreme conflict in sibling relationships and encourage pro-social sibling relationships are needed (Kennedy & Kramer, 2008; Kramer, 2004).

The results gained from the current research can be helpful in a number of ways. Firstly, this research while varied, portrays some effectiveness of the Triple P Programme for three of the four families. Improved sibling and target child behaviour, in conjunction, with three of the parents reporting more enjoyment in their parenting and feeling more confident in managing misbehaviour due to having learnt various skills, has resulted in less stress for the parents and this may aid in maintaining the treatment gains (Brestan et al., 1997).

Secondly, the skills the parent gained from the Triple P Programme, transferred to the target child and sibling(s) and could be seen in how they interacted more positively together. During future training sessions, more of an emphasis could be placed on sibling(s) interactions. In turn, this is beneficial for clinicians and families as research has shown that challenging behaviours of one sibling are inclined to have a negative effect on other sibling interactions (Hastings, 2003). Thirdly, participation in the Triple P Programme appeared to increase cooperative play for some families and also provided higher levels of engagement and involvement from the parent(s) resulting in more positive interactions. Clinicians, could incorporate teaching parents how to play and engaging them in this type of activity in their training sessions as one way to teach and increase positive strategies/interactions. In addition, organising play experiences takes very little time and effort so the parent therefore is more likely to engage in this activity.

These implications are worthy of mention as they aid in producing happy parents, target children and siblings and through increased positive interactions and more involved play sessions, possible coercive cycles may be stopped (Patterson, 1984). The combination of these factors leads to a more enjoyable family life.

Suggestions for Future Research

In Family Systems Theory (derived from general systems theory (Bertalanffy, 1950)), families are thought to be best understood when considered holistically and links of causality are multifaceted and transposable among subsystems (Whiteman et al., 2011). This study shows the bidirectional relationship between parenting style, the target child and sibling relationships. Future research could focus on parenting programmes that take into account consideration of the sibling relationships within families. Future research could also address the effect that siblings have on the development of each otherôs problem behaviours (Fagan & Najman, 2003). It would be valuable to examine different parenting programmes and measure their effects on the target child and their untreated sibling(s). Parent-Child Interaction Therapy may be a beneficial programme to use in future research on this subject as sibling effects might be clearer due to the parent specifically working with only one child during therapy sessions. To date, these studies have not been undertaken. This would aid in supporting those families where siblings may be seen as the antecedent for problematic behaviour with other siblings (Arnold et al., 1975).

Conclusion

This study appears to be the only study specifically examining Level Four Triple P Programme and its effect on the quality of the sibling relationships. In addition, this research helped fill a gap that exists in the current research literature in relation to parenting programmes and their impact on the interactions between parents, the target child and siblings. The parenting programme used in the current study (Triple P Level Four) was effective for three of the four families who participated in this project. The results for the fourth family indicate that a higher level of intervention may have been necessary for this family. The results across all measures were varied. Overall, the number of sibling conflicts

decreased for two of the four families; remained the same for one family but increased dramatically for the fourth family. Combined with findings from the final parental interview the findings suggest that although sibling conflict may still be present or even when it occurs at a lower level, three of the four parents found this behaviour less stressful and easier to manage after the Triple P training. Two of the four families reported positive changes in their type of play experiences with much more cooperative play occurring with the target child and sibling, while the other two families remained engaging in parallel play.

With regard to the quality of interactions between the sibling and target child, overall, negative physical interactions decreased from pre to post intervention for most of the children and negative verbal interactions decreased for five of the eight children. Positive physical and verbal interactions were more varied with three children increasing their positive physical interactions or remaining the same and two children increasing their positive verbal interactions to their siblings. However, there was a decrease in positive physical and positive verbal interactions for a majority of the children but this can be explained by the high rate of parallel play being engaged in for these families at the post intervention observation which provided little opportunities for positive interactions to occur. This does not however, explain the decrease for Family Three and it may just be that for this family there were fewer interactions with each other and more focus on playing.

It appears that post intervention negative interactions between siblings and to and from the children and parents generally decreased. In contrast positive interactions were varied with some increases and some decreases. This was often explained by the type of play being engaged in at the time in combination with parentôs enhanced limit setting skills. In addition, sibling conflict decreased for two families, remained the same for one and increased for one. For the two families that decreased, this was explained by enhanced limit setting and managing misbehaviour skills as well as the ability to encourage desirable behaviour. For the

family that remained the same this may have been because they needed longer to let those behaviours become engrained and to cement the learning of their new skills. For the family that increased, the Triple P Programme was unsuccessful and this explains the increase in sibling conflict.

Despite these limitations, the present study contributes to the current literature by indicating that the Triple P Level Four Programme training was beneficial to three out of four families. A small group of mothers gained additional skills and knowledge in managing their childrenôs behaviour in a positive way. In addition, the quality of the sibling relationship and parent-child relationship was increased.

A major strength of this study was the use of multiple methods in gathering data. The use of direct observations, parent and child interviews, parent questionnaires and child tests provided a rich collection of data to be analysed. In addition, the methods used for data collection were cost and time efficient.

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Appendices

Appendix (A)

UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha
CHRISTCHURCH NEW ZEALAND

HUMAN ETHICS COMMITTEE

Secretary, Lynda Griffioen
Email: human-ethics@canterbury.ac.nz

Ref: HEC 2013/90

22 July 2013

Louise Barber
School of Health Sciences
UNIVERSITY OF CANTERBURY

Dear Louise

The Human Ethics Committee advises that your research proposal "The effects of a parenting programme on relationship quality between the target child, one sibling and parent(s)" has been considered and approved.

Please note that this approval is subject to the incorporation of the amendments you have provided in your email of 19 July 2013.

Best wishes for your project.

Yours sincerely

Lindsey MacDonald
Chair
University of Canterbury Human Ethics Committee

Appendix (B)

Parental Information Form

Researcher: Louise Barber (Master of Child and Family Psychology student)

Phone: 021540214

Email: louise.barber@pg.canterbury.ac.nz

A study into the effects a parenting programme has on the relationships between a child, their sibling and parent(s)/caregiver(s).

My name is Louise Barber and I am completing this research study under the supervision of Gaye Tyler-Merrick (supervisor) and Karyn France (second supervisor).

The purpose of the research study:

As part of a Master's qualification in Child and Family Psychology at the University of Canterbury, my research project is aiming to investigate the effects of a parenting programme and how relationships develop between siblings and parents after the programme. I would like to learn if and/or how the parenting programme has helped you and your family and I would like to come and observe these effects in your home or at the Pukemanu/Dovedale Centre at the College of Education.

Your participation in this research will help us to understand whether there are benefits to other children in these types of programmes and help others to understand how best to design these programmes for families. Because of the additional time and effort requested of you and your family, a $50 petrol voucher will be given as a sign of our gratitude.

Eligibility:

I am recruiting three to six families through an established parenting programme agency. These families will volunteer their participation to my study. To be eligible, families will have a child participating in the parenting programme aged between 3 and 10 years and at least one sibling between the ages of 2 and 12 years who have been cared for since birth by the same mother.

Participation:

Participation is voluntary and if you agree to take part (or help), you will be able to withdraw from the study at any time and any information relating to you will be removed. Participation will involve two observation sessions in your home or at the Pukemanu/Dovedale Centre which will be videoed and attended by myself and one other person from the Child and Family Psychology programme.

This other person will attend for reliability purposes only. During this time you will be requested to play a game with your children for about 30 minutes. The first observation will be an initial measurement before you begin the parenting programme and the second observation will be a follow up visit/observation after undergoing the parenting programme. In addition there will be two brief interviews with you, your child and selected sibling and also a small survey for you to complete. These will both occur before participation in the parenting programme and then after the parenting programme has finished. The interviews will be tape recorded and will take approximately half an hour per interview. You will also be asked to complete dated and timed notes of specific behaviours occurring at home such as if your children engage in hitting, fighting etc. throughout the parenting programme.

I will also interview your children prior to beginning the parenting programme.

Confidentiality of information provided

I will ensure that any information you provide and any recordings will remain confidential to me and my supervisors at all times. To ensure anonymity all names will be changed in any write up of the project. Recordings and transcripts will be stored in a locked filing cabinet in my office or in a password protected file on my computer. This will be kept for five years as per Master of Arts requirements and then destroyed. Only I (the researcher), the research assistant and my supervisors will know your identity and pseudonyms will be used when writing up the thesis.

How information from the data will be used

The information provided in the interviews, surveys and play activity observations will be written up as a Master's thesis. You can be sent a summary of the findings if requested.

If you have any questions about this study feel free to contact either my supervisor or myself (the researcher). This study has been approved by the University of Canterbury Human Ethics Committee. If you have any complaints please firstly contact my supervisor, or The Chair, Human Ethics Committee, University of Christchurch, Private Bag 4800, CHRISTCHURCH, Phone 3642390

Human-ethics@canterbury.ac.nz

Supervisor: Gaye Tyler-Merrick

Email: gaye.tyler-merrick@canterbury.ac.nz

Phone DDI: (03) 345 8381

Appendix (C)

UNIVERSITY OF CANTERBURY
Te Whare Wānanga o Waitaha
CHRISTCHURCH NEW ZEALAND

Information Sheet for Children (both target child and sibling(s)) (for parent to read to child)

Telephone: 021540214
Email: louise.barber@pg.canterbury.ac.nz

An investigation into the effects a parenting programme has on the relationship quality of the target child and their sibling and parent(s).

- Louise is doing a project at the university. She is going to work with you, your brother/sister (say siblings names) and us (Mum and Dad/caregiver).

- Louise and a friend will video and watch you play with your brother/ sister (say siblings names) and us (Mum and/or Dad/caregiver) and take notes about what you do and how you do it. Louise will also ask you a few questions.

- After Louise has finished observing us playing games she will write up her project and she may present her work to other people at a conference or write another paper and have it published.

- As you have been selected, you will be given a code name so that only Louise, her research assistant and her teachers (supervisors) will know your name, your brother/sisters (say siblings name) name or our names.

- Louise will keep any information she has on our family in a locked filing cabinet at her work and after she has written up her project, the information collected will be kept for five years and then she will destroy it.

- We (your parents) have also been asked to help and we will be videoed playing with you and (name the sibling) also.

  If you have any questions, you can talk to us (Mum or Dad/caregiver or Louise). If you change your mind about being in the project, thatôs fine too. All you have to do is tell us or Louise.

Thank you for helping with my project.

Louise Barber

Masters in Child and Family Psychology student

Appendix (D)

Parental Consent Form

Researcher: Louise Barber (Masterôs of Child and Family Psychology student)

Phone: 021540214

Email: louise.barber@pg.canterbury.ac.nz

A study into the effects a parenting programme has on the relationships between a child, their sibling and parent(s)/caregiver(s).

(Please tick each box)

- ☐ I/we have read the information sheet and understand what will be required of us.
- ☐ I/we understand that the observations will be video taped and interviews will be audio taped.
- ☐ I/we have read the information sheet and understand that all information collected will only be accessed by the researcher, her supervisors and the research assistant and that it will be kept confidential and secure.
- ☐ I/we understand that neither I, nor my family, will be identified in any presentations or publications that draw on this research.
- ☐ I/we understand that our participation is voluntary and we may choose to withdraw at any time including withdrawal of all information we have provided.
- ☐ I/we understand that we can receive a report on the findings of the study. I have written my email address below for the report to be sent to.
- ☐ I/we understand that we can get more information about this project from the researcher, and that we can contact the University of Canterbury Ethics Committee if we have any complaints about the research.
- ☐ I/we agree to participate in this research and consent is given for my children to participate.
- ☐ I/we understand that the data collected by Louise will be kept for five years as per her Master of Arts requirements and then it will be destroyed.

Full names:

Signature

_____

Date

_____

Email address for report_____

If you have any questions about this study feel free to contact either my supervisor or myself (the researcher). If you have any complaints please firstly contact my supervisor, or The Chair, Human Ethics Committee, University of Christchurch, Private Bag 4800, CHRISTCHURCH, Phone (03) 3642390

Human-ethics@canterbury.ac.nz

Supervisor: Gaye Tyler-Merrick

Email: gaye.tyler-merrick@canterbury.ac.nz

Phone DDI: (03) 345 8381

Appendix (E)

Child Consent Form (for target child and sibling(s))

(for parent to read to child)

Telephone: 021540214

Email: louise.barber@pg.canterbury.ac.nz

A study into the effects a parenting programme has on the relationships between a child, their sibling and parent(s)/caregiver(s).

- I am happy for you to ask me some questions, video and observe me playing with my brother/sister and parent(s).

  I understand that Louise is not allowed to tell other people about how we play together while she watches and videos us and that she wonôt tell anyone else my name or use my name in her project.

- I understand that all my information will be locked away so no-one except Louise, her two teachers (supervisors), and the person who will help Louise with her work can see it.

- My Mum and Dad will get given a report of the findings if they like.

- I understand that I can change my mind about being in this project and no-one will mind.

- I know that if I have any questions I can ask my parents/Whanau or Louise.

Thank you for helping with the project.

Louise Barber

Signed by child (or on behalf of child) ï parent/caregiver/Whanau signature:

Date:

Appendix (F)

Child Interview:

Get child to draw their house: Tell me a bit about [each family member].

Now you've told me a bit about your family, I'd like to know about a typical weekend day.

Routine on weekend day from when wake up to go to bed-who wakes you up, what you do.

Likes/dislikes on the weekend- tell me about the good things about the weekend and the bad things.

Home context e.g. games with family and feelings - who do you play with most? What sorts of things do you play? What's your favourite game? Who gets to be the boss? Are there any games you don't like? explore feelings, tell me about a time you felt...., tell me about how you feel when you're playing...., how would people know, tell me about where inside you feel it. What do they do when feeling like that, does that make it go away?

Rules at home - tell me about what happens if people don't follow them. Tell me about what happens if people do follow them.

Is there anything else you would like to talk about?

Appendix (G)

Final Interview

- Tell me what it has been like for you over the past few weeks, how has the programme worked out for you?

- What about how the programme has worked for the rest of your family?

- What was the best thing, what was the most challenging thing?

- What changes have you noticed in the family? What about in [target child]? What about in you specifically?

- How has [target child] and [siblingôs] relationship changed, if at all?

- How has yours and [target childôs] relationship changed? What about [father] and [target child]?